WORK-RELATED ROAD RISKS AND LEGAL LIABILITIES

for The Redland City Council

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is a joint venture initiative of the Motor Accident Insurance Commission

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DISCLAIMER

The views expressed in this report are those of the authors and do not necessarily represent the views of the Redland City Council.

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Executive Summary

Background

Workplace serious injuries and deaths due to unsafe work practices are a substantial health and socioeconomic burden to the community, particularly in industries such as construction, agriculture and fishing, and transport and storage. Some 2000 individuals die each year from work-related causes and tens of thousands of individuals incur permanent disabling work-related injuries and the direct (e.g., medical & legal) and indirect (e.g., lost productivity) cost to the Australian economy has been estimated between $32 billion and $57 billion annually.

A common cause of workplace injuries and deaths is occupational driving and work-related fatal road crashes comprise between 23 and 32% of work-related fatalities each year. A major safety concern across the various industry groups therefore involve deaths and injuries associated with work-related driving.

However, while organisations emphasise safety practices in most spheres of the workplace they often neglect work-related driving and lack appropriate policies to enhance safe driving practices.

Aim

The aim of this research project is to examine how well the Redland City Council manages the risks and legal liabilities associated with work-related driving involving passenger vehicles and plant equipment vehicles as well as traffic management in and around road construction and maintenance sites.

Method

The approach utilised in this program of research involved:

- examining the literature on road-related deaths and injuries;
- identifying the legislation and industrial codes of practice;

- identifying legal obligations as prescribed by statute and common law;
- the governance and management of safety related to fleet vehicles, plant equipment and road construction sites;
- interviewing key staff involved with fleet management and workplace health and safety;
- auditing workplace policies and procedures and practices; and
- visitation of road construction sites;

Summary of Key Findings

The definition of a workplace is very broad and includes any place where an employee is undertaking a work-related function. There is ample legal authority that an employee can be held liable in respect of a vehicle because of a defective system of work. Hence, workplace health and safety legislation applies to vehicles. Employers have legal and duty of care obligations under Workplace Health and Safety (WHS) laws, industrial codes, other relevant laws related to roads and plant equipment as well as the common law.

The Redland City Council has a comprehensive set of well written policies and procedures to manage workplace safety. Risk management frameworks have also been established to identify potential safety hazards and implement control and preventive measures. These frameworks are managed by dedicated employees who have been trained and accredited as Workplace Health and Safety Officers. Additionally, workplace safety is supported through WHS committees and representatives. Introductory and ongoing training is provided for employees and contractors.

An excellent system is in place to investigate serious incidents and implement corrective actions. On a daily basis WHS officers visit various Council workplaces and road construction sites to enforce compliance and workplace safety procedures. In comparison to other Queensland Councils the Redland City Council has been assessed by the Queensland Ombudsman's Office as having the best practice in the area of traffic management at road construction and maintenance sites. In relation to management of Fleet vehicles and plant equipment, procedures are in place to ensure their maintenance and safe operation. In comparison to a number of other Councils Redland City Council demonstrated greater

management commitment to work-related road safety and better safer driving practices. Fleet passenger vehicles are particularly well managed.

However, the current project identified a number of issues of concern. For instance, there was a lack of integration of WHS across the whole of the organisation. In particular, there needs to be more consistent and regular safety audits of work being undertaken on the Islands. A number of concerns related to employees with special needs due to poor literacy skills and minor cognitive impairment were identified, particularly, with regards to developing appropriate monitoring, supervision and training frameworks.

The most serious liability risks relate to the use of plant equipment. The majority of serious incidents involved contractors. Countermeasures need to be improved in order to ensure contractors are complying with workplace safety laws and standards. Although the Council does have a solid system of safety inspection in place the mechanisms may not be adequate enough to ensure complete indemnity against poor safety practices by contractors. Clearly a number of accidents involving contractors related to poorly trained or incompetent contractors coupled with a lack of adequate supervision of contractors. Procedures need to be sufficient to ensure contractors are competently recruited and trained to undertake the work. Additionally, contractors need to be more regularly audited and appropriate control measures need to be in place to ensure all reasonable practical precautions have been undertaken to prevent injury and/or death to workers and members of the public.

Other concerns related to safety issues involved:

- inadequate roadside protection barriers;
- safety devices on plant equipment;
- lack of warning signs to warn approaching motorists of road works;
- gravel spillage not cleared by contractors;
- difficulties with managing excessive speed through road construction sites; and
- slashing of long grass and inadequate checks for possible hidden objects

In regards to Fleet safety issues there was a lack of adequate and ongoing checks of employee's fitness to drive in regards to health and having valid driving licenses. There was also a lack of processes to identify and address poor driving behaviour and some reluctance to report minor traffic incidents.

Key Recommendations

The key recommendations related to improving the climate and culture of workplace safety, establishing a specific workplace safety directorate and ensuring that independent safety advice was not hampered by the organisational culture and structure. It was also suggested that a single traffic management unit might be of benefit in that such a unit may allow time and resources to be applied to addressing issues related to speeding through road construction sites and other traffic management issues (e.g., improving protection barriers). Additionally, it is recommended that a number of innovative measures be trialled to evaluate their effectiveness in improving safety in and around road construction sites.

Other recommendations related to implementing measures to identify and address poor driver behaviour, unfit drivers, record near misses and minor mishaps and check for hidden objects in long grass before slashing. Recommendations were also made with respect to developing processes to identify employees with specials needs and ensuring they receive appropriate training and supervision. Finally, it was recommended that mechanisms need to be improved to ensure contractors are competent and appropriately audited and supervised.

1. Introduction

1.1 Background

An organisational work-related road safety situational analysis for Redland City Council was undertaken by the Centre for Accident and Road Safety-Queensland (CARRSQ) and completed in January 2009. During this analysis it was recognised that there was a need to examine in more detail the ability of Redland City Council to manage the risks and comply with Workplace Health and Safety Legislation and Codes of practice associated with work-related driving and traffic management at road construction sites.

Redland City Council has a population around 140,000 and is a Local Government Area of South East Queensland, situated along the southern coast of Moreton Bay. The Redland City Council is comprised of a combination of island, mainland, coastal, rural and hinterland environments' covering 537 square kilometres. Redland City is approximately 26 kilometres south-east of the Brisbane City business centre and is bordered by the Logan City Council to the west, and the Gold Coast City Council to the south. Although most of the population resides on the main urban conglomeration based around the centres of Capalaba, Cleveland and Victoria Point, over 6,000 live on Islands in Moreton Bay that are part of the City. These are North Stradbroke, Coochiemudlo and the Southern Moreton Bay Islands of Karragarra, Lamb, Russell and Macleay.

Redland City Council employs 964 people to provide a range of services and maintain infrastructure related to roads (935 km of roads are owned by council), bridges, drains, water ways, waste disposal, footpaths, libraries, land use planning, recreational and cultural services. Additionally, state and local laws are enforced related to land use planning environment protection, public health, traffic, parking and animal management.

The aim of this report is to examine how well the Redland City Council manages the risks associated with work-related driving and traffic management at road construction and maintenance sites.

2. Methodology

2.1 Literature review

A literature review was undertaken to examine:

- the prevalence of deaths and injuries associated with road-related work;
- the prevalence of deaths and injuries in the workplace generally; and
- best practice for managing workplace health and safety issues.

2.2 Legislation, Codes of Practice and Case Law

The Queensland governmental legislative base and codes of practice relevant to work-related road safety were examined. In addition, case law based on both common law precedents and statute law were examined to demonstrate how the courts view the obligations of organisations in relation to workplace safety issues.

2.3 Governance, Management and Policy and Procedure Documents

Redland City Council's corporate governance and management of workplace safety issues were examined. In addition, organisational structures, policy and procedures and practices that support workplace safety were examined.

2.4 Staff interviews

A number of key staff involved in managing the council vehicular/plant fleet services and workplace safety were interviewed.

2.5 Site Visit

The auditor accompanied a Senior Workplace Health and Safety Officer (WHSO), and a specialist in road construction as he inspected various road construction and maintenance sites.

3. Statute Law, Codes of Practice and Common Law

3.1 Queensland legislation

The relevant workplace health and safety legislative requirements regarding work-related driving and construction or maintenance work on roads include the following:

- *Workplace Health and Safety Act 1995*
- *Workplace Health and Safety Regulation 2008*
- *Electrical Safety Act 2002*
- *Electrical Safety Regulation 2002*
- *Transport Operations (Road Use Management) Act 1995*
- *Transport Operations (Road Use Management-Accreditation and Other Provisions)*
- *Regulation 2005*
- *Safe Design and Operation of Tractors Code of Practice 2005*

3.2 Codes of Practice

- *Traffic Management for Construction & Maintenance Work Code of Practice 2008*
- *Risk Management Code of Practice*
- *First Aid Code of Practice*
- *Manual Tasks Code of Practice*
- *Safe Design and Operation of Tractors Code of Practice*
- *Plant Code of Practice*
- *Tunnelling Code of Practice*
- *Noise Code of Practice*
- *Concrete Pumping Code of Practice*
- *Mobile Crane Code of Practice*
- *Tower Crane Code of Practice*
- *Tilt-up and Pre-Cast Construction Industry Code of Practice*
- *Formwork Code of Practice*
- *Australian design Rules and Standards*

3.3 Workplace Legal Obligations

The Workplace Health and Safety Act 1995 (WHS Act) accompany regulation and codes of practice impose obligations on employers and employees at workplaces to prevent or control hazards that may result in injury, illness or death. Risks must be assessed and control

measures implemented and reviewed to prevent or minimise risks. In the event that no guidelines are provided to minimise risk there is an obligation under the Act to take reasonable precautions and exercise proper diligence against the risk. The relevant persons who have an obligation under the WHS Act include persons conducting a business or undertaking, persons in control of the workplace and relevant work areas, principle contractors and persons who supply goods and plant to the workplace.

It is important to note that the definition of a workplace is very broad and includes any place where an employee is undertaking a work-related function. Hence, a vehicle used for work purposes is regarded as an extension of the workplace. There is ample authority that an employer can be held liable in respect of a vehicle because of a defective system of work involving that vehicle *(Manning v. Taroom Shire Council & Ors* [1994] QCA 430; *Curtin bros, (Qld) Pty Ltd v. FAI General Ins Co* [1995] 1 Qd.R. 142; *McEwan v. Gold Coast City Council* [1987] 1 Qd.R. 337; *Brew v. Workcover Queensland* [2004] 1 Qd.R. 621.

Employers should be aware that in 2008, Workplace Relations Ministers from around Australia agreed to nationally harmonise workplace/occupational health and safety laws. A national legislative model of workplace laws is being developed so as to increase workplace safety thereby reducing workplace injuries and deaths. Each State will be expected to amend their workplace safety laws to reflect the national model.

4. Literature Review

4.1 Workplace injuries and deaths

Workplace serious injuries and deaths due to unsafe work practices are a substantial health and socioeconomic burden to the community, particularly in industries such as construction, agriculture and fishing, and transport and storage. For instance, of the 10.8 million Australian workers who worked during the 2005-06 financial year, 690,000 of them (6.4%, or 64 per 1000 employed) experienced a physical or mental injury (excluding death) while at work, on a work break or commuting to and from the workplace (ABS, 2007). Some 2000 individuals die each year from work-related causes and tens of thousands of individuals incur permanent disabling work-related injuries (NOHSC, 2003). It is difficult to determine the true cost of serious injury and death in the workplace due to the unreliability of statistical records. However, the direct (e.g., medical & legal) and indirect (e.g., lost productivity) cost to the Astralia economy has been estimated between $32 billion and $57 billion annually (Australian Safety & Compensation Council, 2009). Furthermore, the precise national organisational costs of compliance with WHS laws are yet to be determined.

In regards to work-related injuries (not including fatalities) based on a household work-related injuries survey conducted on persons aged 15 years or older for the 2005-06 financial year, 438,000 men and 252,000 women incurred an injury (ABS, 2007). Industries recording the highest injury rates included occupations that involved mostly men engaged in physical work and included Agriculture, Forestry and Fishing (109 per 1,000 employed), manufacturing (87 per 1,000 employed) and Construction (86 per 1,000 employed).

A comprehensive analysis of work-related fatalities found that on average 603 deaths occurred each year between 1989 and 1992 and 136 of them (22.5%) occurred on public roads (Driscoll, Mitchell, Mandryk, Healey, Hendric, & Hull, 2001). A more recent study revealed that 332 people in Australia died as a result of a work-related injury during the financial year of 2003-2004 and one third of these fatalities involved a road crash (Australian Safety & Compensation Council, 2006).

During the 2008-09 financial year 177 work-related deaths were recorded (Safe Work Australia, 2009). The majority of deaths occurred in industries such as Agriculture, Forestry and Fishing (45, 12.3 worker fatalities per 100,000 workers), Construction (27, 3.0 worker fatalities per 100,000 workers), Transport and Storage (18, 3.8 worker fatalities per 100,000 workers) and mining (13, 8.4 worker fatalities per 100,000 workers). Most fatalities were men and the most common cause of fatalities were vehicle accidents (54), being hit by moving objects (34), falls from a height (20), being hit by falling objects (16), and drowning (14). A major safety concern across the various industry groups therefore involves deaths and injuries associated with work-related driving and as such warrants a more in-depth analysis.

Australian and overseas statistics have estimated that work-related fatal road crashes comprise between 23 and 32% of work-related fatalities each year (Driscoll, Marsh, McNoe, Langley, Stout, Feyer, & Williamson, 2005; Loomis, Richardson, Wolf, Runyan, & Butts, 1997; Stone, 1993; Stout, Jenkins, & Pizatella, 1996). Work-related traffic injuries are about twice as likely to result in death or permanent disability compared to other workplace accidents (Wheatley, 1997), and account for up to 13% of the national road toll (Murray, Newman, Watson, Davey, & Sconfeld, 2003). Work-related drivers also report on average a higher level of crash involvement compared to private or non-work-related drivers (Downs, Keigan, Maycock, & Grayson, 1999; Kweon & Kockelman, 2003).

In a more detailed examination of the Australian 1989-1992 work-related deaths data, originally examined by Driscoll et al. (2001), Mitchell, Driscoll and Healey (2004) established that around 30% of all work-related deaths involved the worker being killed in a motor vehicle accident. Additionally, the authors found the highest rate of work-related deaths during 1989-1992 were recorded by workers employed in the transport and storage industry. The total insurance costs of work-related road accidents in Australia has been estimated to between 1billon and 1.5 billion dollars (Wheatley, 1997) and the average total insurance cost of a fleet vehicular accident is 28,000 dollars (Davey & Banks, 2005). However, there are many other associated costs that are difficult to calculate and the true costs are not easily ascertained (Murray et al., 2003). The social and economic costs associated with work-related driving demonstrates the need for a greater emphasis on promoting or ensuring safer work-related driving practices.

Safer workplaces are primarily encouraged or enforced through workplace health and safety laws (WHS). Organisational and social factors also play a crucial role in determining the effectiveness of WHS laws (Mearns, Whitaker, & Finn, 2003). However, the extent organisational and social factors mediate and moderate the effectiveness of WHS deterrence measures on workplace safety outcomes remains unknown. Johnstone (2003) has suggested that appropriate enforcement action to prevent workplace injuries and deaths can be impeded by how administrators interpret and understand WHS laws. Furthermore, it has been demonstrated that organisational processes such as patterns of practice in relation to WHS issues also play a role in determining what kinds of WHS contraventions are targeted for enforcement and/or prosecution (Gunningham & Johnstone, 1999; Gunningham, Johnstone, & Rozen, 1996).

The dynamic and complex characteristics of organisations may therefore impact on both employers and employees perceptions, beliefs and attitudes about how WHS laws are understood, interpreted and implemented through organisational policies, procedures and practices. How employers and employees collectively perceive risk to safety issues and identify collective attitudes, beliefs and values in regards to safety issues has been referred to as the safety climate and safety culture, respectively of the organisation (Cox, Tomás, Cheyne, & Oliver, 1998; Glendon & Stanton, 2000; Williamson et al., 2000; Wills, Watson & Biggs, 2009).

The characteristics that have been found to underlie a positive safety culture include safety knowledge, user/interpersonal skills and appropriate attitudes and beliefs (Dingsdag, Biggs, Sheahan, & Cipolla, 2006). Furthermore, training, education, knowledge of rules, good communications and interpersonal skills coupled with actions that enforce and monitor safety are key factors in contributing to a safety culture (Dingsdag, Biggs, & Sheahan, 2008). These characteristics of a positive safety culture should be engrained in the corporate governance of organisations so as to promote zero tolerance towards work practices that increase injury risk.

5. Workplace Safety

5.1 Corporate Governance

Governance involves a system that includes processes, policies and structures through which a board of directors or government body direct and manage an organisation to achieve its objectives. According to Boardman & Lyon (2006) governance refers to the higher level processes by which managers are held to account and through which the broadest strategic decisions are taken.

The Redland City Council undertakes governance through a number of standing committees comprised of elected members and senior council officers. The recommendations of the standing committees are presented to the general meeting of the Council. The Council has an internal Audit committee and internal auditors operate independently reporting to the Chief Executive Officer (CEO) and the audit committee in relation to legislative and policy compliance, use of public funds/assets and cost effectiveness of financial management systems. During the 2008/09 financial year the audit team completed 30 audit reports and 39 investigation reports (see Redland City Council Annual Report, 2008-2009, p. 58).

The heads of various Council Departments implement workplace safety policies and are accountable to the standing committees and the CEO. The Council also developed a governance department which has assumed responsibility for corporate performance and risk, auditing, legal services and marketing and communications.

In relation to overall governance of council matters a risk management framework based on the Australian Standard for Risk Management and a performance management framework have been implemented. In relation to safety risks a workplace health and safety management system and plan have been developed and implemented. The workplace health and safety (WHS) management plan aims to identify health and safety hazards/risks with the view to implementing control and preventive measures.

The Council has also developed numerous procedure documents to provide instruction and guidance to employees to carry out their tasks in a manner that prevents injury-related risks.

The main general procedure documents, booklets and policies in relation to workplace safety include:

- The A-Z of health and safety for council employees
- Workplace health & safety obligations & responsibilities
- Workplace health & safety resources
- Leadership & management of the workplace health & safety system
- Information & communication for workplace health & safety matters
- Workplace health & safety training
- Occupational violence, management of workplace change
- Emergencies management codes
- Workplace health and safety, workplace health & safety Induction
- Safe work method statement development, Workplace health & Safety registration
- Health & safety management plan, Corrective Action reports
- Incident action response, Emergency preparedness & response, Fatigue management
- Incident investigations, Workplace health & safety auditing & inspections
- First Aid Management
- Contractor safety management, Plant hire. Working with plant
- Employee code of conduct
- Workplace health and safety statistics
- Workplace health & safety incident action response
- Workplace health & safety incident reporting and recording
- Risk management work procedure
- Environmental incidents and emergencies, hazardous materials management
- Air quality, lighting, noise management, machine guarding, amenities
- Workplace health & safety consultation
- Workplace health & safety performance measures
- Office safety, Sun safety, Hot work, Heights, Health surveillance, Sharps injuries
- Manual handling, job safety analysis, confined work spaces
- Electrical testing and tagging, Trench safety, Exposure to vibration
- Workplace health and safety and signage

- Statutory inspections, testing, calibration & servicing of equipment
- Health assessment, Immunisation, Asbestos management
- Provisional improvement notices
- Workplace health & safety disciplinary process
- Warnings & infringement notices

The main work-related driving, road construction and traffic management procedure documents include:

- Construction safety
- Working on roads
- Work related road safety
- Safe work procedure development
- Undertaking traffic control procedure
- Working with reversing vehicles & plant
- Load restraint on vehicles & trailers
- Risk management process of manual handling tasks
- Protective equipment
- Undertaking slinging & movement of loads
- Operation of central vehicle pools
- Driver responsibilities for use, care & maintenance of fleet passenger vehicles
- Motor vehicle incident
- Car pool terms and conditions
- Staff passenger vehicle fleet
- Novated leasing of vehicles
- Fleet log books: Vehicle and Plant daily inspection logs

The auditor viewed in excess of 100 procedure documents and a number of policies and booklets. The procedure documents were clearly written in plain English and generally covered the scope, purpose and actions and responsibilities of relevant persons as well as the required procedure in relation to the work task/area. The procedure documents are available to access via the organisational intranet. A process is in place to review and update procedure documents in accordance with legislative amendments.

The workplace procedure documents, policies and booklets adequately reflect governmental legislation and industry codes of practice.

Workplace health and safety procedures are implemented and monitored through a variety of management mechanisms such as the Workplace Health and Safety Unit, Workplace Health and Safety Committee and Workplace Health and Safety Representatives. The Workplace Health and Safety Unit assume a major role in ensuring workplace safety procedures are implemented (see 5.2.2 role & function of the WHS Unit). The Principal Advisor of the Workplace Health and Safety Unit reports directly to the Manager of the Department of People and Change (formerly Human Resources).

It is worth noting the research reported by Boardman & Lyon (2006) about best practice in occupational health and safety. These authors note that there are fundamentals principles that need to be observed to ensure workplace safety procedures are effective. The principles include:

- an effective system of risk identification and management as well as an adequate monitoring and audit program to ensure compliance with policies and standards;
- directors should have a clear understanding of the key health and safety issues;
- directors should understand their legal responsibilities and their role in governing workplace health and safety;
- directors need to be supported by workplace policy and strategy development, setting standards, performance monitoring and internal control;
- at least one nominated director/chairman or other should have an additional role of overseeing and challenging the workplace health and safety governance process;
- the Board of Directors (Board) need to take ownership for key workplace health and safety issues and be ambassadors for good workplace health and safety performance;
- there should be an open culture across the organisation with a high level of communication both internally and externally on workplace health and safety;
- the Board should understand the risks and opportunities associated with WHS matters and the pressures which might compromise standards and establish a strategy to respond;

- the Board should set out objectives and targets for workplace management and create an incentive structure for senior executives and non-Executive which drives good WHS performance;
- the Board should ensure WHS risks are managed and controlled adequately and that a framework to ensure compliance with core standards is established. Additionally, there should be a process that enables the governance and performance to be challenged. Broad and Lyon (2006) recommend this role to be undertaken by a non-Executive Director or external advisor or a workplace health and safety professional who has a direct link to the CEO in order to avoid a group think and rubber stamping attitude;
- the Board should integrate the WHS governance process into the main corporate governance structures. An additional board subcommittee to consider workplace safety issues may be relevant in some situations.

The auditor is not in a position to comment on whether the Redland City Council adheres to all of the above principles without a more thorough examination of Council governance systems and processes. However, it should be noted that Council has established a solid workplace, health and safety framework that includes a WHS committee and WHS Unit and systems to record and report on workplace safety concerns and monitor compliance with workplace safety procedures.

However, the auditor believes that Council could benefit by having a non-Executive person with workplace safety expertise to report directly to the CEO in order to provide advice about workplace safety issues and concerns. The Principal Advisor of the Workplace Health and Safety Unit appears to be a suitable person for this role and such a position would improve the transparency of workplace safety concerns and provide checks and balances across the organisation.

The auditor also noted that while the Workplace Health and Safety Unit monitored safety concerns across the Council generally, other sectors (e.g., Fleet Services & Development Assessment) of the Council assumed workplace safety monitoring and reporting of safety concerns in their respective work areas. Although the auditor believed this is an excellent practice it may be of benefit to the council to consider establishing a Director of Workplace Health and Safety (WHS) with specific authority to coordinate workplace safety issues and

monitor safety performance. This position would allow safety procedures/practices to be implemented and monitored in an integrated and seamless manner across the whole organisation. The WHS Director should be accountable to a subcommittee of the Council's Board of Directors established to take specific/sole responsibility for WHS concerns and to encourage a positive safety couture across the organisation.

5.2 Management and Performance

The Redland City Council has a comprehensive audit system and program that aims to ensure compliance with policies, procedures and legislation. Systems and procedures across the various section of Council are audited and improved to minimise risks. The Council's insurance programs are reviewed an updated to ensure general liability, property and other insurance covers are in place and provide adequate protection.

During the 2008-2009 financial year some 28 of the planned 29 risk-based audits were completed and all recommendations flowing from the audits were implemented (Redland City Council 2008-2009 Annual Report). This program assists the council to ensure compliance with policies and legislation. The Council has processes in place to ensure continuous improvement and enhancement in workplace management systems. There is an ongoing focus on identifying potential emerging safety hazards and addressing safety issues around traffic management at road construction sites. In fact a report prepared by the Queensland Workplace Rights Ombudsman on the contract traffic control industry (Brown, 2009) recognised the Redland City Council as having best practice in comparison to other local councils in regards to traffic management at road construction and maintenance sites. Regular reviews of the strategic and operational risk registers are conducted to ensure key business risks are identified and appropriate management strategies are implemented.

In relation to the delivery of workplace health and safety improvement plan not all the recommended actions were delivered (about 60% delivered) but the most significant ones have been and outstanding issues are continuing to be implemented.

It was noted that during April to June 2009 there were seven lost time injuries (Redland City Council Annual Report, 2009). The Council Annual report notes that some of these injuries

required major surgery and significant periods of rehabilitation. All injuries have been reviewed and measures to prevent re-occurrence have been established. The Council has a process in place to ensure all injured employees are actively assisted by Redland Workcover rehabilitation staff to return to work. A more thorough analysis of the cost impact of workplace injuries on an annual basis is required in order to evaluate whether improvements in WHS are being achieved.

In relation to recording lost time accident data it should be noted that this data can be under representative as it does not measure non-injury health and safety failures (e.g., near misses & minor mishaps). More accurate performance can be measured by taking into account indicators such as measures of safety culture and measures of integrity and performance of management systems. Documenting key indicators such as risk control measures, near misses, minor mishaps, financial losses and general safety process failures may be of real assistance in developing strategies to avoid future incidents with more major safety implications.

The auditor noted that some of these key indicators are being documented but a more thorough investigation is required in order to clarify the extent that key indicators are being documented and monitored in order to develop and implement improved safety processes.

The Council's Annual report also notes that a spreadsheet has been developed and is managed by the WHS Unit in order to record workplace inspections. Some 78 corrective/preventive actions were completed in order to improve workplace safety.

The Council has processes in place to ensure employees are familiar with the Council Code of Conduct and driver and other workplace training programs are ongoing**.**

5.3 Work Place Health and Safety Unit

The Workplace Health and Safety Unit adopts an investigatory, educative, monitoring and enforcement role in regards to workplace safety procedures across Council work areas that involve council staff, contractors and independent contractors. The unit also provides internal safety training and induction on safety to staff and this is augmented by specific

safety training at the various work areas. Each work area has appointed a workplace health and safety representative and these representatives provide information to a Workplace Health and Safety Committee. This committee gathers council wide information about safety risks and provides advice about how these risks are managed.

The Workplace Health and Safety Unit have at least 4 accredited workplace and health safety officers (WHSO) and the Unit also assumes responsibility for preparing investigative reports on incidents related to workplace accidents. In the event that a serious workplace accident occurs that requires a specialist investigator, appropriate private consultants are contracted to carry out the investigation. The WHSO's also monitor and audit workplace areas such as after school care facilities, respite care facilities and senior citizens facilities under the jurisdiction of Council. Additionally, WHSO's carry daily inspections on the mainland and periodic inspections on the Islands to ensure compliance with workplace safety legislation, policies and procedures in relation to road construction and traffic management.

In relation to compliance with safety procedures the Workplace Health and Safety Unit's Principle Advisor noted that employees who have poor literacy skills experience difficulties understanding written instructions and processing information relating to workplace safety issues. Additionally, it was also noted that some employees seem to experience concentration and memory problems resulting in the inability to process and/or recall work procedures and training instructions. Furthermore, some of these employees also at times have difficulties in understanding the relevance or benefit to safety in carrying out specific workplace safety procedures and practices.

Employees with poor literacy skills and memory problems may pose a higher risk for injury and harm compared to other employees with adequate reading and memory functioning in relation to workplace safety practices. In order to improve knowledge and procedural practice related to safety issues among employees with special needs (i.e., employees with poor literacy skills & memory problems) it is recommended that Council establish a process for identifying employees who have poor literacy skills and memory problems with the view to developing suitable workplace training programs based on visual/spatial learning techniques. Additional training programs designed to meet the special needs of some employees have the potential to improve workplace safety. Furthermore, work area managers and supervisors also need to recognise that employees with poor literacy skills and memory

problems may require regular exposure to the same workplace training procedures and more frequent monitoring and guidance.

5.4 Site Visit to road construction and maintenance work sites

During the site visit the investigator was accompanied by Mr David Simshauser, Senior Workplace Health and Safety Officer and experienced in road construction. Road construction sites were visited at Cleveland, Victoria Point, Redland Bay and Mt Cotton. The key safety concerns and non-compliance with legislation and codes of practice include:

5.4.1 Road construction protection barriers or bollards

- protection barriers not linked correctly;
- insufficient water in protection barriers;
- protection barriers incorrectly positioned; and
- inappropriate use of different type of protection barriers.

It should be noted that protection barriers have an important safety function. They are placed around road construction sites in order for road users to clearly identify a road site that is under construction. If the barriers are not correctly positioned, linked or appropriately balanced with water, the barriers pose a dangerous risk to road users, pedestrians and construction workers. For instance, protection barriers erected in accordance with the code of practice are designed to deflect a vehicle from the road construction and maintenance site thus slowing the vehicle and minimising risk of injury to workers and the public. If the barriers are linked or balanced inappropriately when they are hit by a vehicle they will fail to deflect the vehicle and have the potential to become airborne posing a danger to road workers, other road users and pedestrians.

It was noted that some of the road construction and maintenance works were being undertaken near schools and hence children could be at risk from ineffective protection/bollard barriers. The Senior WHSO also noted that children at times have let the water out of the protection barriers hence it is recommended that protective barriers include a plug design that cannot be tampered with resulting in the loss of water. However, it appeared to the auditor that most of the protective barriers were deficient in water due to evaporation

and lack of adequate monitoring by road construction supervisors. Depicted below are examples of protective barriers/bollards which are not erected in compliance with the code of practice and therefore have the potential to pose a threat to safety.

Stuart Street Wellington Point – Protective barriers/bollards not linked correctly.

Stuart Street Wellington Point – Protections barriers incorrectly linked will be ineffective and when hit by a vehicle pose a potential danger to the public.

5.4.2 Development Site & Mt Cotton Area

A quarry and development site in the Mt Cotton area was inspected. The Senior WHO noted that there had been a serious incident at the quarry involving the rollover of a grader. He stated that damage to the grader was around $170,000.00 plus replacement costs for extra machinery and costs for loss of time. It was noted that inspections of quarries involve auditing quarry safety, first aid equipment and traffic management of heavy vehicles. The Senior WHO was satisfied with traffic management at the quarry site at the time of the site visit.

A development site in close proximity to the Mt Cotton quarry was also visited. A number of concerns were noted by the Senior WHO including:

- the different types of protection barriers/bollards were not compliant with the code of practice;
- water depth in barriers/bollards were not complaint with code of practice;
- no reflectors on protection barriers;
- no street lighting to make the development site and excavation work visible at night time;
- a vehicle making a turn at night could foreseeably hit a barrier and end up in the excavation site;
- inward and outward protection barriers/bollards incorrectly positioned;
- light not flashing on loader;
- grader had only one brake light;
- gravel on road not swept could pose a safety risk to motorists;
- warning signs incorrectly positioned; and
- reversing sounder covered up with tape on grader.

The Senior WHO noted that it is the role of the Assessment Development section of Council to conduct inspections of development sites. The concerns will be reported to this section for follow up.

5.4.3 Redland Bay Area

On Gordon Road at Redland Bay situated close to a school near a road construction and development site a broken pipe that had been dug up was left on the edge of the footpath near the road. The Senior WHSO noted that the pipe contained asbestos that was visible and protruding. The Contractor was contacted and required to move the broken pipe within the hour. Furthermore, loose gravel was noted on the corner of the road near the development site which could pose a traffic hazard.

5.4.4 Speeding through road construction and maintenance sites.

A speed awareness and detection device was set up at a road construction and maintenance site. It was noted that three speed warning signs approaching the site had been erected. The first speed sign indicating a speed of 40k had been erected just after a roundabout. Two other similar 40k speed signs had been erected at various intervals prior to approaching the traffic controller.

The speed of vehicles passing through the road construction site was recorded for 38 vehicles. Most of the vehicles were sedans and there were several four wheel drives and a number of heavy vehicles. The average speed of vehicles varied between 33k and 63k and the mean or average speed was 45k. The highest speed was 63k with 7 motorists travelling over 60k and 11 motorists travelling between 50 and 60ks.

Overall, the majority of motorists were exceeding the 40k speed limit set for the road construction site. It was also worthy to note that motorists would have had to slow down to enter the roundabout prior to reaching the first 40k speed sign. After exiting the roundabout the 40k speed sign was clearly visible. Hence, in order for most motorists to exceed the 40k limit after the third 40k speed limit sign they must have increased their speed above the 40k speed limit despite slowing to enter the roundabout and then observing the 40k speed limit sign after exiting the roundabout. A number of heavy vehicles were observed to slow quickly on observing the traffic controller.

The above observations highlighted the potential danger to traffic controllers, road workers and other road users of motorists speeding through road construction sites. Speeding through road constructions sites may well be indicative of speeding in general. It was also noted that there was no ability for traffic controllers to enforce speed limits. On several occasions police have been requested to enforce speed limits in and around road constructions sites. However, police have advised that they do not have the resources to undertake this task particularly having regard to the number of road construction sites on any given day. On occasions when the road construction sites are considered dangerous to motorists, police specials and a police vehicle can be provided but police specials do not carry out enforcement duties and only provide a presence.

The danger of poor traffic control management coupled with speeding motorists was demonstrated in a recent traffic incident on Mt Cotton road. In this incident a semitrailer came over a hill to be confronted by allegedly a long line of traffic being stopped by a traffic controller. The semitrailer in trying to avoid an accident collided with several vehicles and the driver of the semi trailer was subsequently killed. At this stage the cause of the accident has not been determined and the matter will have to be finally determined by the Coroner. However, it has been allegedly reported that there were insufficient road work warning signs and that the traffic line was excessively long for the purpose of traffic management.

Speed awareness radar – vehicle clocked doing in excess of 60k in a 40k posted road construction site

5.4.5 Other traffic management concerns

A number of other observations and safety concerns were noted by the Senior WHSO including:

- signage not correctly positioned at unattended road construction site;
- open excavation sites;
- general poor traffic management and workers working near moving machinery;
- lack of guidance to traffic controllers and supervision of road construction sites by principle contractors;
- motorists verbal abuse and throwing items towards traffic controllers;
- Tractor mowing grass on footpath with beacon light not displayed. Tractor driver cautioned by Senior WHSO and driver advised to display beacon. Tractor driver had no spare bulb for beacon light;
- maintenance team working on/or near road trimming tree with no warning signs displayed to warn approaching motorists; and
- Inability to provide sufficient safety inspections and audits to Islands. The Senior WHSO visits Stradbroke Island about 3-4 times a year and also visits Russell & Macleay Islands about 6 times a year.

Main road Wellington Point - Poor traffic management

Main road Wellington Point – worker doing work dangerously close to loader undertaking construction work

Redland Bay – Tree contractor trimming trees with no road signs to warn approaching motorists

5.4.6 Improving safety in and around road construction and maintenance sites

The Senior WHSO and the auditor discussed a number of countermeasures that might have potential to reduce the dangers in and around road construction and maintenance sites. These included:

- the establishment of a single traffic unit management branch to monitor and enforce compliance with codes of practice;
- the introduction of portable speed bumps that could be used in an around road construction sites;
- the use of speed detection warning and awareness devices at all hazardous road construction sites to educate motorists;
- liaison with the police traffic section to investigate ways for police to be more proactive in the enforcement of speed limits in and around road construction sites;
- consider legislative amendments in order to appoint and empower specialist Council Traffic Officers to issue infringement notices regarding excessive speed in and around road construction sites; and
- the need to increase staff by at least two trained WHSO within the Workplace Health and Safety Unit to ensure more regular and systematic inspections and audits across both the mainland and the Islands.

5.5 Work-related Driving: fleet Services, passenger/heavy vehicles and plant machinery

5.5.1 Procedure documents and Codes of Practice

The Redland City Council has developed a number of comprehensive procedure documents and codes of practice in relation to the management and operation of all types of vehicles. The most relevant procedure documents and codes include:

- Operation of central vehicle pools
- Driver responsibilities for use, care & maintenance of fleet passenger vehicles
- Motor vehicle incident

- Car pool terms and conditions
- Staff passenger vehicle fleet
- Novated leasing of vehicles
- Fleet log books: Vehicle and Plant daily inspection logs
- Working with reversing vehicles
- Load restraint of vehicles and trailers
- Undertaking of slinging and movement of loads
- Plant Code of Practice & Mobile Crane Code of Practice

The council fleet includes plant and vehicle units as well as motor powered small engine plant items.

5.5.2 Passenger Vehicles

In relation to passenger vehicles the Fleet Co-ordinator is responsible for acquisition and disposal of passenger vehicles. Procedural guidelines are available in relation to home garaging, minimising tax fringe benefits, partial private use, novated lease arrangements and central pooling of vehicles. Procedure documents provide guidelines for selecting, using, allocating and training in regards to sedans, wagons and utilities. An open transparent tender process is used for the purchase of fleet vehicles. Criteria are provided for acquisition of vehicles with emphasis placed on vehicle safety as mandatory selection criteria. Other weighted selection criteria include vehicle life costing, environmental impact and local content.

A vehicular pooling system operates in a number of designated areas and guidelines are provided for booking, refuelling, disputes and general maintenance and care of vehicles.
In particular, employees agree to specific terms and conditions in relation to the use of fleet vehicles. For instance, car pool booking and electronic key management systems must be complied with and employees are required to have a current valid driver's licence. In the event an employee exceeds the drivers' licence demerit point system they must cease using fleet vehicle and notify fleet services and their manager. Procedures are also provided for managing breakdowns and accidents and employees are required to drive in a courteous manner, obey road rules and drive in a manner so as not to bring the council into disrepute.

Procedures, forms and systems (e.g., incident action response procedure & information booklet) operate to ensure the reporting and recording of motor vehicle accidents.

There is a Fleet log book system that applies to all employees, contractors, work experience students, trainees and clients. This log book system requires daily, and weekly visual pre-drive checks to be conducted by the designated driver that includes keeping a record and notifying fleet services of any faults and repairs required. The log books system aims to ensure vehicular service requirements are maintained so as to prevent and minimise risk of further damage and ensure compliance with WPS and road transport laws.

In order to promote driver safety, education and training is provided for both internal and external staff. At least 100 council officers have participated in driving training between September 2008 and June 2009 (Redland City Annual Report, p. 45).

The Council also has systems in place to ensure vehicle and plant equipment are purchased in accordance with Australian safety standards. An asset management plan has been established to provide direction for the purchase of vehicle and plant equipment and to ensure vehicle and plant are appropriately serviced and kept in good operating order. The asset management plan provides procedures to ensure suitable vehicles are procured for operational needs. Additionally, procedures require defects to be documented and reported and vehicles to be purchased and managed having regard to limiting carbon emissions.

It is also important to note the vehicular fleet is regarded by Council as part of the workplace and subject to similar safety standards. Safety issues are reviewed periodically and procedures are in place to promote safe driving, record and investigate driver behaviour and accidents.

In the last several years there have only been three traffics incidents of note involving council and non-council vehicles. For instance, the local police reported that there had been a motor vehicle accident that had occurred at an unattended road construction site during the night time. At the time of the incident no work was being conducted and there were no injuries incurred by the occupants of the vehicle. In another incident a council vehicle incurred some minor damage from an unknown person or persons while the vehicle was stationary, unattended and parked in the street. It was reported there was some reluctance by the senior

employee responsible for the vehicle at the time to complete the appropriate incident report. The third incident potentially resulting in very serious consequences involved a non-council vehicle and a council skid street loader.

Skid Street loader, electric light pole and non-council passenger vehicle

On 5 August 2009 a plant hire contractor had been undertaking some remedial work with a skid street loader to repair pot holes and washouts to a parking area adjacent to a skate park in Thornlands. Work signs had been established but were not erected in accordance with the approved traffic plan and a permit had not been obtained to establish a worksite on the road. Spotters had been established to manage vehicles, cyclists and pedestrians who wanted to access the skate park.

The contractor operating the skid steer loader was completing some final trim work by wheel rolling material. The loader had been reversed and was almost stationary when the loader was moved forward and came into contact with an electric light pole. The pole wavered and then fell across the main road at right angles to the direction of the loader. The light pole came into contact with a vehicle travelling south on Cleveland/Redland bay Road. The vehicle received significant damage and the pregnant female driver was taken to hospital by ambulance for cautionary medical assessment. Another male passenger was uninjured. At the time of the incident there was high level of vehicular traffic and the traffic was blocked by the electric light pole on the main road. The electric light pole was removed from the main road so as to allow traffic to flow.

The investigators from Redland Council Mr David Simshauser and Ms Lina Mckenna found:

- the light pole received only slight contact from the loader;
- marks on the light pole indicated it had been damaged previously;
- there was a lack of a spotter being used directly with the loader;
- no exclusion zone had been made around the light pole;
- work was being conducted on a main road without a permit or suitable traffic management plan;

- some of the work (shoulder of the road) being undertaken was more likely to be the domain of Dept. of Transport and Main Roads rather than Redland Council's responsibility;
- the incident indicated poor job planning, instruction and supervision; and
- the pole should not have been removed without police clearance and being deemed electrically safe.

A corrective action report was completed and recommendations made regarding training, supervision, use of 2-way radios, an exclusion zone, traffic management plans and the need for appropriate use of spotters.

Damage to non-council vehicle after being hit by an electric pole

5.2.4 Driving Safety Climate Annual Survey

In order to evaluate the effectiveness of the workplace driving safety climate an annual survey was administered to Local and City Councils across Queensland to obtain information about:

- Typical driving behaviour

- Employee attitudes to work related road safety
- Management commitment to driving safety
- Work related road safety climate

The first annual benchmark workshop was conducted on 23 November 2007. This benchmark day provided the results and feedback from the baseline survey conducted earlier in the year and culminated in a report supplied to each council involved in the project. The second benchmark survey was undertaken in October 2008. The third annual benchmark survey was undertaken in October 2009 and a summary of the results were presented in March 2010. Each of these survey benchmarks in conjunction with a benchmark activity comparing 3 years of crash claims across each of the participating councils has also been undertaken and the overall and individual results are contained within this report.

It should be noted that all results of the benchmark exercise were derived from the survey distributed to each council in the latter part of 2009. This survey was designed to provide each council with current data relating to factors that influence driver behaviour and the content and context of these factors are outlined within this report. Data from each council survey responses were analysed and are reported in a manner to ensure anonymity, thus each council involved has previously been provided with a number that was assigned to represent their council. Furthermore scores for each council and differences in scores between each council, should be taken within the context of the response rates and overall mean scores of the sample. No statistical tests of significance were conducted and thus differences between councils on indicators within the survey results should be interpreted in regard to the overall mean scores and response rates.

The CARRS-Q organisational safety and work related driving survey comprising a collection of four standardised questionnaires and a range of socio-demographic and behavioural questions were collated to measure participants' self-reported attitudes, intentions and driving behaviours. The survey instruments utilised included the; (a) Driver Behaviour Questionnaire (DBQ) (Reason, Manstead, Stradling, Baxter, & Campbell, 1990). to investigate aberrant driving behaviours, such as Errors, Speeding and Aggressive Violations, (b) Manchester Driver Attitude Questionnaire (DAQ) (Parker, Stradling, & Manstead, 1996) to examine participants' attitudes towards driving and road safety, (c) Fleet Safety Climate Survey (Glendon & Litherland, 2000) to explore respondents' perceptions regarding Fleet

Safety within the organisation and (d) Sensation Seeking scale (Matthews, Desmond, Joyner, Carcary, & Gilliland, 1997) to determine drivers' willingness to engage in risky driving behaviours. In addition, a number of socio-demographic questions were included in the survey to determine participants' age, gender, driving history (e.g., years experience, number of traffic offences and crashes) and their weekly driving exposure (e.g., type of car driven, driving hours).

Surveys were distributed either online or via internal mailing systems according to each council's previously reported requirements within each of the councils that agreed to participate in the benchmark study. Paper versions of the survey were distributed via each organisations internal mailing systems and comprised a letter of introduction, corresponding questionnaire, and a reply paid envelope addressed directly back to CARRS-Q.

Employees within each council were also given the opportunity to complete online versions of the survey. The online surveys were accessed via a secure internet link and password emailed to council employees by council staff along with a brief description and aims of the survey. The internet link and password provided were unique to each council so that confidentiality and anonymity could be assured along with categorising response rates for each council. Upon employees submitting the online survey, to ensure anonymity and confidentiality data was downloaded direct to CARRS-Q via a secure password encrypted data file.

Redland City Council was compared with a number of other local and city councils and the comparative performances are depicted in figures 1-5. The Redland City Council is represented by the number 4 in figures 1-5. The high score obtained by Council number 4 (Redland City Council) in figures 1 and 2 indicates safer driving practices. Five local and city councils were contacted and four of them agreed to participate.

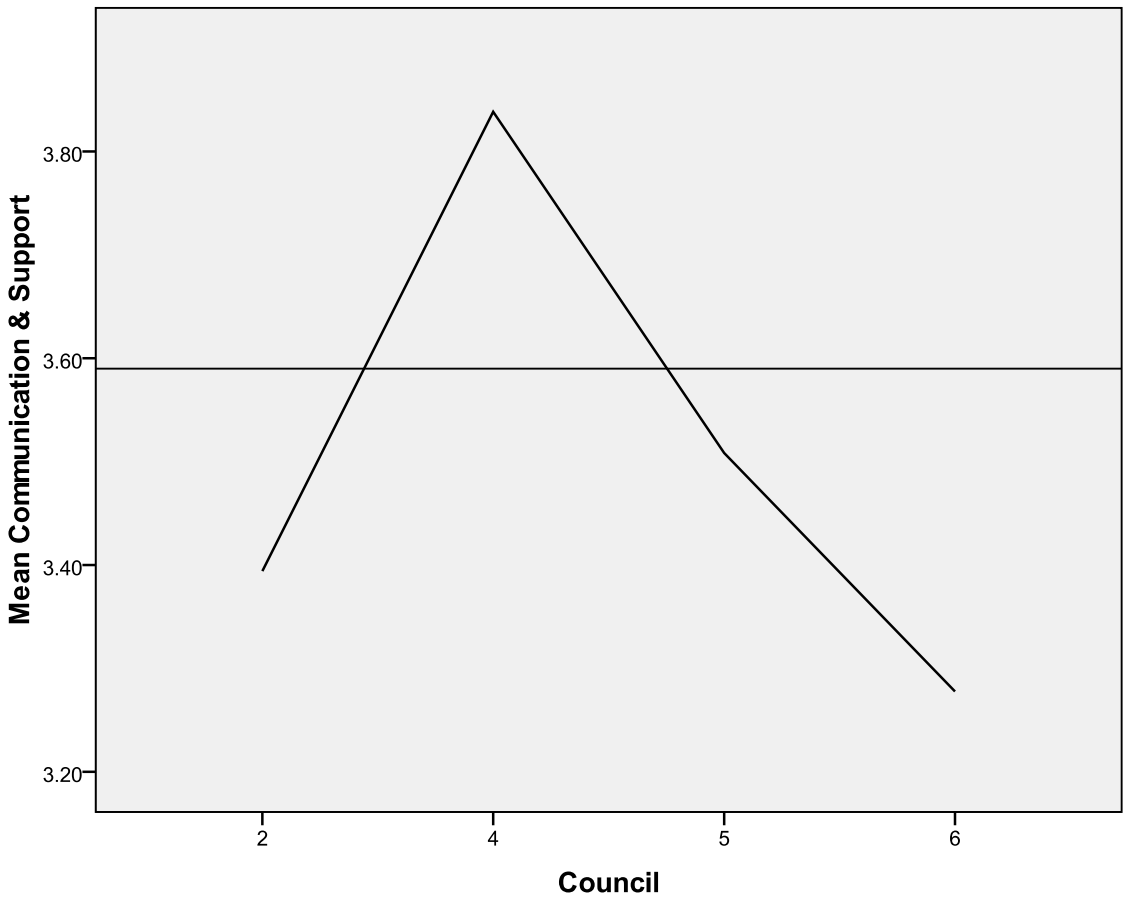

Figure 1 – Safe Driving Practices: Communication and Support

Figure 1 identifies the extent to which employees believe fleet safety is communicated well and the extent work practices support safe driving. Employees were asked to record the level of their agreement/disagreement on a five point likert scale (strongly agree, agree, unsure, disagree, and strongly disagree). The Redland City Council obtained the highest mean score of 4 compared to the other councils that received a mean of 3.58.

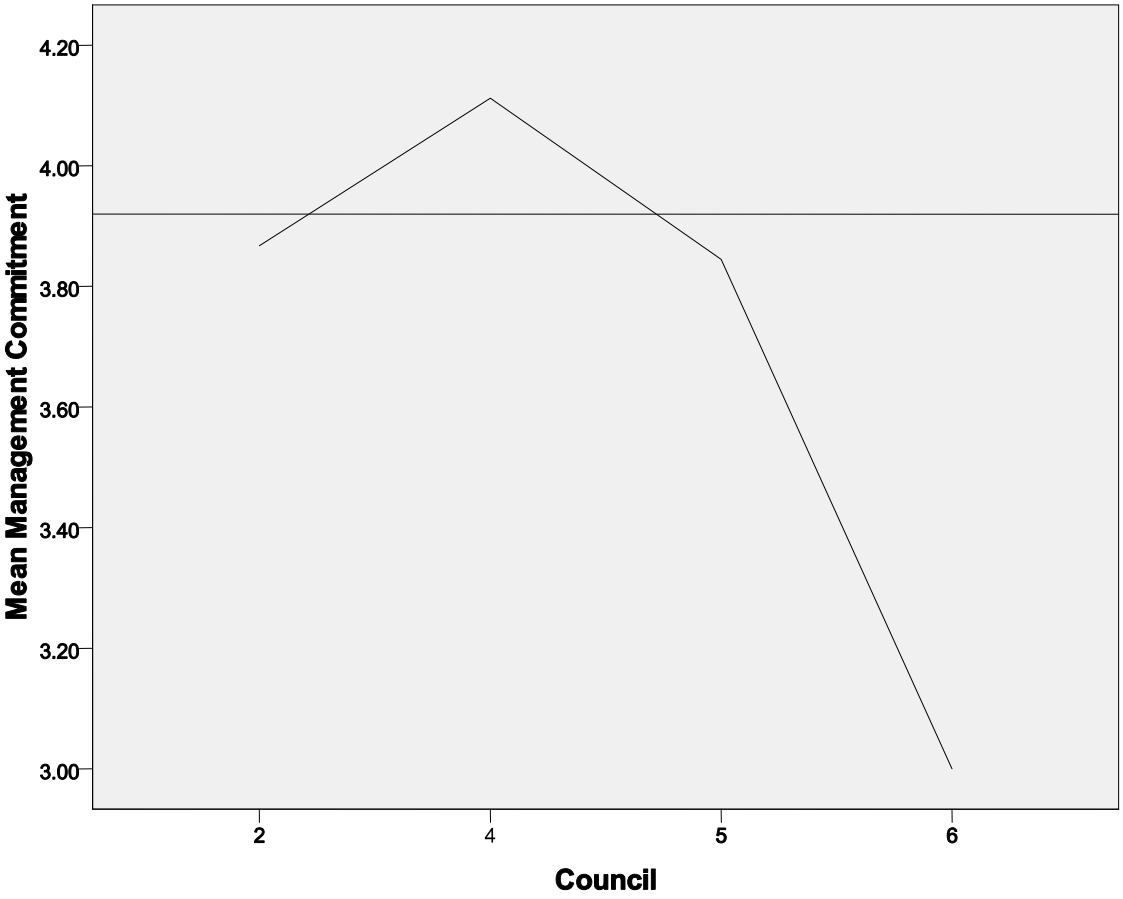

Figure 2 – Safe Driving Practices and Management Commitment

Figure 2 depicts how Redland City Council performed in comparison to other councils in relation to driving practices and management commitment towards employee driving safely. The survey revealed that Redland City Council has a higher level of management commitment to work-related road safety as reported by employees in comparison to other councils involved in the research. Other results from the survey indicated:

- Only Redland City Council demonstrated consistent improvement across numerous indicators over the 3 years.
- Potentially up to 4% of each organisation's employees are currently driving or may be driving unlicensed due to demerit point loss.
- Work-related road safety is often the "first ball dropped" when the game plan changes.
- Reversing crashes are most common type of crash but least managed or targeted.

In respect to the average cost of vehicular crash across the various councils figure 3 demonstrates that Redland City Council demonstrated consistent improvement in reducing the average crash cost. For instance, Redland City Council reduced it crash cost from $1400 to $800, a reduction of approximately 57% between 2008 and 2009.

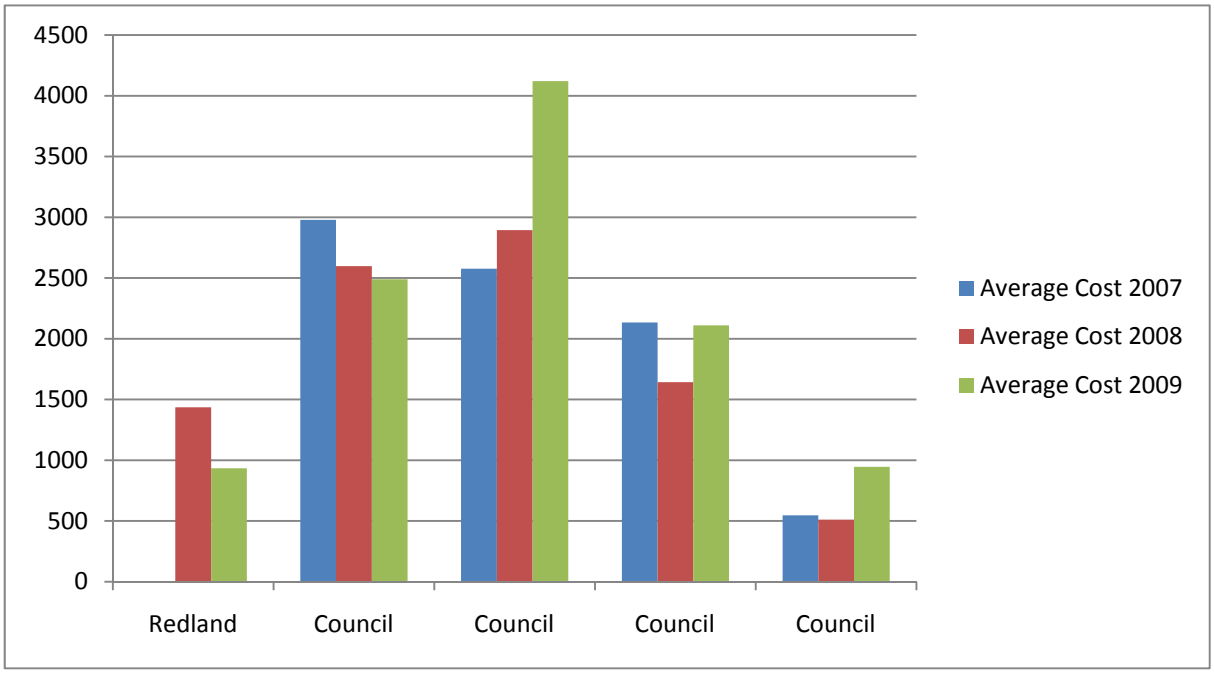

Figure 3 – Average Crash Costs

In respect to at fault crashes Redland City Council was the only Council to demonstrate driver behaviour improvement. The crash data depicted in figure 4 depicts a reduction in at fault crashes between 2008 and 2009 for Redland City Council and increases for the other councils.

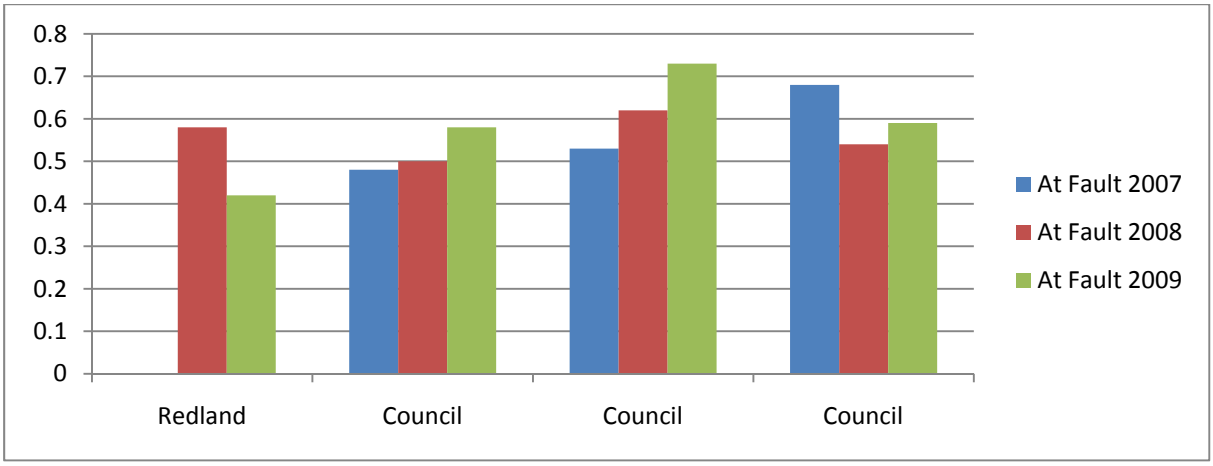

Figure 4 – Proportion of "At Fault" Crashes

Figure 5 demonstrates that Redland City Council in regards to the proportion of reversing crashes experienced a significant reduction between 2008 and 2009 while the other 4 councils experienced increases.

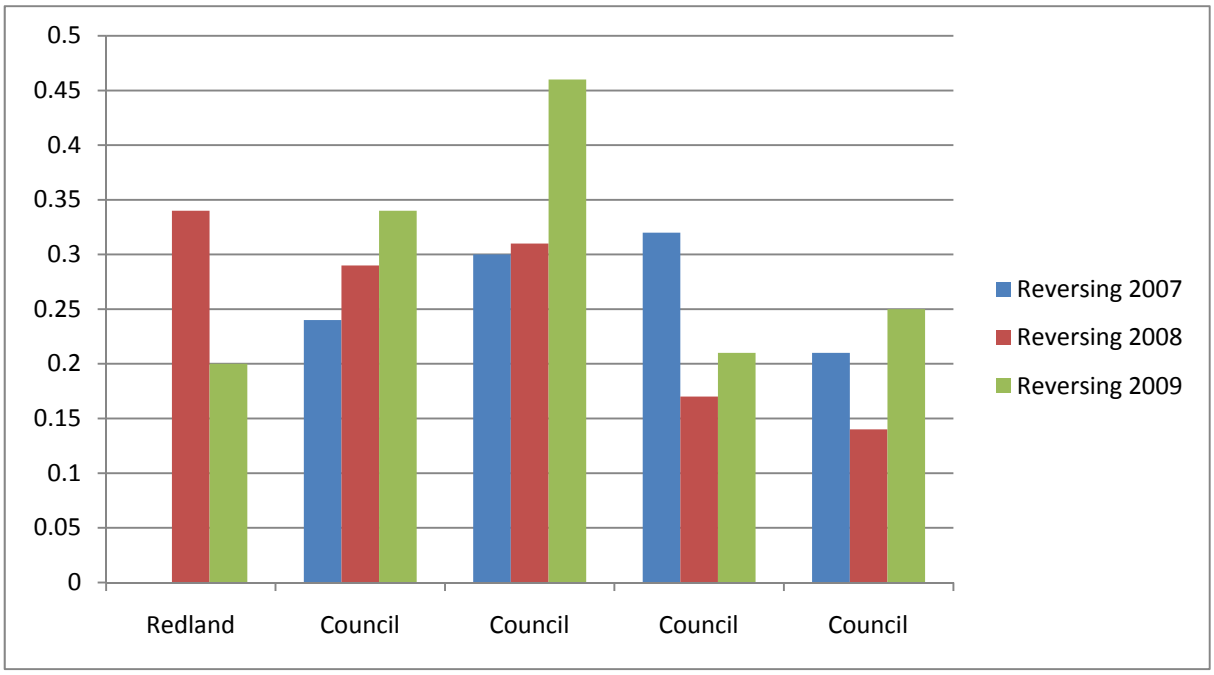

Figure 5 – Proportion of Reversing Crashes

5.5.3 Plant Machinery

The majority of serious incidents involve plant machinery and details in relation to a number of them are reported below in order to identify some of the key safety risks.

Backhoe Incident

On 1 September 2009 a Plant Hire Contractor was operating a Backhoe to clear a drain so that ponding of water could be released to prevent mosquito breeding. The Backhoe operator had been working on one side of the drain but vegetation stopped the operator from accessing part of the drain. In order to get to the other side of the drain the Backhoe operator decided to cross the pond with his machine via the footbridge. When the Backhoe weighing 3.5 tons moved onto the bridge the bridge collapsed under the weight of the Backhoe.

Mr David Simshauser, Senior Workplace Health and Safety Officer, Redland City Council, investigated the incident. His findings concluded:

- the size of Backhoe compared to the foot bridge – the Backhoe was barely able to fit onto the bridge;
- the bridge was of light weight construction;
- there was not a lot of planning in respect of the scope for the work;
- the Backhoe was considered to be not fit for the scope or purpose the work as it was too small;
- the foot bridge had no warning load limits or barriers to restrict access to plant and vehicles; and
- the incident could have been avoided with thorough planning and scoping of the work prior to commencement.

Backhoe crossing footbridge – bridge collapses under weight of backhoe

Chainsaw and truck mounted EWP Incident

On the 11 November 2009 two tree crews from Labour Hire were working together to remove seed pods from Cocos palms using a small chainsaw and working from a truck mounted EWP about 4.5 metres from the ground. One of the workers operated the chain saw from the box of the EWP while the other worker operated the EWP controls. While cutting the pods with the chain saw the blade became easily jammed. In order to prevent the jamming the operator changed from holding the chainsaw with his right hand to his left hand so that he could use his right hand to support the pod and prevent jamming. The pod fell and hit him on right wrist pushing his arm down on top of the chainsaw blade resulting in 3 cuts to his forearm which required stitches and lost time injury for a number of days.

The incident investigator Mr David Simshauser found:

- the 2 workers in the platform were not working together on the same task but on separate tasks with their backs to each other;
- there was no element of team work at the time;
- there was no safety related procedures for working with chain saws from an EWP at the time;
- the arm guards provided were not being used at the time of the incident – workers have avoided using these arm guards because branches and sawdust become caught in them while they are working; and
- there was a lack of training for workers using saws when working from an EWP.

In conclusion, the incident highlighted the lack of documented safe work procedures and safe work method statements covering the hazards of tree operations.

Re-enactment of workers cutting seed pods

Re-enactment of workers cutting seed pods

Macleay Island quarry excavator incident

A 21 tonne excavator was being operated at Macleay Island waste transfer station by an independent contractor, John and Elizabeth Mackenzie haulage. The incident was investigated by Mr David Simshauser, Senior WHSO, Redland City Council.

Green waste had been loaded onto a semitrailer from the top of the green waste heap and the operator was cleaning up around the heap by fully extending the boom of the excavator and raking all of the lose material spilt in the loading process back into the side of the heap. When the boom was pulled back in towards the body of the machine and the weight was transferred, the machine began to tip backwards and continued tipping until the operator could only see the sky. The excavator tipped over backwards off the green waste heap and rolled down the embankment. Assistance was rendered to the operator by another person at

the site and an ambulance called, but the site transfer attendant was unaware of the incident at the time. The injured excavator operator was transferred by medivac helicopter to a mainland hospital.

The key findings by the investigator included:

- the Contractor was new at moving green waste and his normal occupation involved removal of scrap metal;
- green waste stored outside nominated area of storage waste;
- the green waste pile was 2 metre high;
- excavator rolled backwards off heap landing boom first and then rolling on its side and down an embankment;
- following the rollover the operator's cab remained on the surface of the ground and the boom of excavator was buried 300-400mm in the ground;
- operator's seat belt not used;
- impact of rollover caused the glass of operator's cabin to break – head of operator came into contact with glass resulting in a number of small lacerations to operator's head;
- the operator's right shoulder was dislocated;
- after the removal of all green waste it was discovered waste had been raked over an old landfill, fires of old wood, other waste products and there had been an over stacking of green waste for number of years and the area was unstable for machinery;
- poor management of site;
- serious and inadequate lack of supervision of contractors on waste sites; and
- procedures required to change the system of storage and clearing of green waste.

Macleay Island quarry excavator rollover

There are a number of other incidents involving plant equipment that are worth noting.

The pictures below relate to a rollover of a tractor whilst it was being used to mow grass towards the bottom of a sloped embankment. It was found that the machine utilised for the task was unsuitable and that if more careful planning had been undertaken an appropriate machine for the task could have been identified.

Tractor rollover while mowing grass towards bottom of sloped embankment

In the picture below the reversing alarm on a backhoe has been taped over in order to reduce noise. The reduced noise of the reversing alarm reduces safety as other workers and vehicles may not become aware of the reversing backhoe. This is a breach of the Workplace Health and Safety Act 1995. The Safe Design and Operation of Tractors Code of Practice 2005 states that a tractor operating in a confined area in which other persons cannot be excluded should be fitted with reversing beepers. The penalties can be substantial for both the individual and the corporation. The table below depicts the maximum fines and or imprisonment for various situations.

Workplace Health and Safety Act Qld 1995	**Individual**	**Imprisonment**	**Corporation**
Multiple deaths	$200,000	3 years	$1,000,000
Offences causing death or grievous bodily harm	$100,000	2 years	$500,000
Exposure to a substance likely to cause death or grievous bodily harm	$75,000	1 year	$375,000
Offences causing bodily harm	$75,000	1 year	$375,000
Other offences	$50,000	6 months	$250,000

Reversing alarm taped over to reduce noise from backhoe

A small articulated vehicle rolled over while loading a truck. Although the operator had undertaken two operator training courses for small articulated vehicles he was found to be an incompetent operator. The operator used the articulated vehicle on the side of a hill rather than a flat area. The use of the articulated vehicle in this manner caused the articulated vehicle to become unstable. Additionally, the bucket was overloaded and the operator was unaware that the bucket of the articulated tipping load capacity was only 60%. Other factors such as an inexperienced supervisor and the fact that the tyres of the vehicle were only at half pressure also contributed to the incident.

Small articulated vehicle loader rollover on German Church Road

In the picture below contractors were spraying trees on Old Cleveland Road East without appropriate warning signs to warn approaching motorists. Additionally, no beacon light was in use at the time the machine was operating.

Contractors spraying trees with no posted warning signs to warn approaching motorists

In the following picture tree contractors were trimming trees at Redland Bay without appropriate warning signs to warn approaching motorists. Additionally, no warning beacon was being used at the time of the operation and due to the potential danger of the task one traffic lane should have been closed.

Contractors trimming trees – no warning signs and lane should have been closed

6. Significant workplace safety incidents and prosecutions

6.1 Townsville slasher tragedy

A 42 year old woman who had been walking to work along a footpath was killed instantly when hit in the head by a piece of pipe that appears to have ricocheted off a tractor pulling a slasher. The steel pipe after hitting the woman travelled a further 50 metres before coming to rest outside a red rooster store and near a school. The tractor pulling a slasher had been mowing grass in a vacant lot and appears to have run over a steel pipe hidden in the long grass or a piece of metal may have become detached from the tractor. The Coroner is yet to determine the cause of the incident.

6.2 Redcliffe cyclist Incident

On 19th February 2002 a cyclist was injured in a crash when a piece of glass was thrown into the tyre of the bicycle by a ride on mower operated by a Redcliffe City Council employee who was mowing long grass at the time. The mower was fitted with an appropriate deflection guard. The matter was finalised in the Supreme Court of Appeal Queensland on 17 November 2006.

The cyclist suffered shoulder and knee injuries and could not work for three months. Additionally, he has permanent loss of some of his shoulder function due to the incident.

The council worker said he did not see any bottles or glass and the worker had not looked up from what he was doing as the cyclist cycled towards him. The cyclist said that when he heard the tyre blow out the handle bars turned and the bicycle went off the edge of the concrete.

The trial Judge found the Council should have taken steps to reduce the risk of injury by putting up a notice closing the footpath and directing pedestrians and cyclists to use the other side of the road. The Judge also noted that some form of temporary barrier could have been

erected cheaply to protect people. Furthermore, the council worker did not obey workplace procedures that required him to stop the mower and disengage blades until approaching pedestrians or cyclists had passed. The cyclist was awarded $60,600 for his injuries.

6.3 Victoria Workcover v. Monash City Council, Chubb Security, Rabot Paving Pty Ltd

On 24th October 2003 footpath works were being conducted on the western side of Blackburn Road Glen Waverley. Portions of the footpath were closed. Rabot Paving Pty Ltd was performing these works under a supply contract on behalf of Monash City Council. Most of the 10 workers were employed by McDonough contracting who supplied labour to Rabot Paving. Other workers were engaged by Rabot Paving as independent contractors.

Monash City Council required Rabot Paving to engage Chubb security to undertake traffic management at the worksite. This involved the preparation of a traffic management plan (TMP) and the supply of traffic controllers. The TMP had been endorsed by council prior to being submitted to VicRoads by Chubb Security for approval to implement the TMP. The TMP contained inaccurate information in regards to the duration of the works. Additionally, the TMP did not make any provision for pedestrian traffic around the worksite. The Council engineer pointed out the inaccuracies to Chubb Security prior to work commencing and the TMP was amended. Chubb Security engaged two traffic controllers with limited experience. One of the traffic controllers altered the TMP on the site at the request of a Rabot Paving employee without advising Chubb Security or the council. The closed lane work zone extended a distance of approximately 800metres and there were numerous sites nominated for footpath repairs over this area.

Monash City Council had contracted a supervisor to visit at least once per day. At about 10:25am on 24 October 2003 a 56 year old pedestrian had been walking from her home and entered the closed lane. There were no witnesses as to how she entered the closed lane and she was struck by a reversing utility. The utility driver was an employee of McDonough contracting Ltd Pty. The utility did not have a reversing beeper or a spotter and neither of the two Chubb security traffic controllers was in the immediate area where the incident occurred. The pedestrian died.

Charges were laid under s21, s22 and s23 of the Victorian Occupational Health and Safety Act (OHS) related to failing to maintain safe workplace/systems, failing to ensure persons other than employee not exposed to risks and failing to ensure safe access and egress to and from the workplace. Offences under these sections of the Act are indictable.

Monash City Council was acquitted on all charges. The Council had ensured an appropriate TMP and conducted daily inspections to monitor and enforce the TMP. All practical steps were taken not to expose people to risk of injury.

Rabot paving was acquitted on all charges. Chubb Security was found guilty of breach of s22 of the OHS Act for failing to ensure persons other than employees were not exposed to risks. Chubb Security was fined $80,000.

This case demonstrates that if a local Council takes all reasonable practical steps to ensure persons are not exposed to risk of injury this is a complete defence or indemnity to any negligent work practices by contractors employed by Council. In this case due to the risky nature and potential danger of the work the Council's had legal obligations or Duty of Care to make every effort to ensure the public was protected against the negligence of the contractors. Monash City Council ensured that an appropriate TMP was in place and that inspectors monitored works on a daily basis in order to enforce compliance with workplace legislation and codes of conduct. Hence, the Council took all reasonable practical steps to ensure the safety of workers and pedestrians.

6.4 Prosecutions

In the Mackay Magistrates Court in 2003 an Island Tourist Resort was fined $15,000 plus costs of $1,830 when two employees were injured while using an off road vehicle with a broken brake cable and poor brake shoes. Additionally, the vehicle had no service records and little or no training had been provided to the operators and there was a lack of supervision.

In the Magistrates Court Brisbane, 2001 a South East QLD local council government was fined $40,000.00 for failure to ensure a safe system of work. In this incident the hand brake system was not adequate to hold a road roller on an incline resulting in a rollover and the death of a worker. The deficient procedures and systems were found to have caused the death of the worker.

In 2004 in NSW a four wheel drive overturned. At the time of the incident the worker in the vehicle had not been wearing a seatbelt and was killed. The Nowra Truck & Farm Equipment firm and a number of companies were fined a total of $162,000.00.

In WorkCover v. Dale & Meyers [2004] a Hydraulic crane had been fitted on a truck to lift timber. The worker operating the lever control had his left hand crushed and four fingers amputated. It was found that the company had failed to put in place adequate control measures or provide instruction or proper training. The company was fined $40,000 plus costs of $5,517.93.

A truck driver operating a truck owned by Denbo Pty Ltd was killed. The company was found guilty of criminal negligence and fined $120,000 by the Supreme Court of Victoria in 1994. One of the Directors was also fined $10,000. The Directors of the company were found to have had knowledge that the truck was in an unfit condition. Additionally, the driver had not received adequate training and/or supervision and no warning had been provided to the driver as to the condition of the truck. The company had no adequate maintenance system in place and ignored proper systems & procedures for economic reasons.

The Denbo case was one of the early cases in which it was demonstrated that Corporate manslaughter prosecutions in Australia may be brought when any person is killed in an activity carried out by a corporation. At the time of its conviction, however, Denbo Pty Ltd was in liquidation. The company was wound up six months before sentencing and did not pay the fine. The company recommenced operations in the form of another company and the successor company did not pay the fine either.

In order for a corporation to be found guilty of manslaughter by gross negligence evidence of conduct of an identified individual must be characterised as involving gross criminal

negligence which can be attributed to the corporation. In Queensland the Workplace Health and Safety Act 1995 was amended in 2003 to include penalties for causing a death in the workplace. The maximum punishment for causing multiple deaths at the workplace is 3 years imprisonment, while causing a single death at the workplace attracts a maximum of 2 years imprisonment. Most Australian jurisdictions have introduced workplace health and safety duties which impose punitive sanctions directly against directors and company officers.

The above prosecutions highlight the penalties that employers can potentially face for failing to ensure safe management systems. Employers, Company Directors and Senior Managers have a legal obligation to take practical precautions to prevent workplace risks that may lead to injuries or deaths.

7. Legal Obligations and Legal Risks

7.1 Duty of care

The Duty of Care owed by employers to employees arises both in common law and by statute *(e.g., Workplace Health & Safety legislation & Judge/Court made law)*

It has been well established under Common Law that an employer must be reasonably prudent to take reasonable care to avoid exposing employees to injury-related risks (*Donoghue v. Stevenson* [1932] AC 562). In *Donoghue v. Stevenson* the Neighbourhood principle was established and implied a duty of care to persons who could be closely and directly affected by one party's acts or omissions and where it could be reasonably foreseen an injury might occur. The neighbourhood principle was also extended to public policy concerns, *Caparo Industries Plc v. Dickman [1990] 1 All ER 568)* which established a three stage test for duty of care. The three stage test required: (1) damage must be foreseeable, (2) there must be a relationship characterised by proximity or the neighbourhood principle, (3) the court must consider it would be fair, just and reasonable that a duty of care should be imposed having regard to the situation.

Employers are therefore generally vicariously liable for negligent employees and employers are strictly liable for employees where they have personal control of employees and the workplace. The ordinary Laws of Negligence have been encompassed in Corporations Law and Finance and Audits Acts and places a duty on Directors and relevant officers to show diligence and skill in carrying out their duties.

In order to establish negligence it must be shown that:

- the employer owes a duty of care;
- the employer breached the duty of care; and
- the breach of duty of care caused the employee's injuries.

The employer therefore has a duty to take reasonable steps to protect employees from reasonable foreseeable risks and injuries. However, the law becomes more complicated when organisations and companies engage in the practice of outsourcing work to independent contractors. The history of case law suggests a general legal principal that employers are not responsible for the wrongs of independent contractors *(Laugher v. Pointer [1826] 5 B & C. 547; 108 ER. 204)* particularly where the employer has little or no control over independent contractors. In these situations independent contractors absorb the costs of risk prevention and risk liabilities within the price for services.

However, employers can be held liable for independent contractors in certain circumstances. For example, in respect to recruiting independent contractors employers are liable for their own negligence *(Torette House v. Berkman [1940] 62 C.L.R. at 645).* In other words employers have a responsibility to recruit competent independent contractors and they are liable if they don't take reasonable steps to do so. Employers also have a responsibility to ensure independent contractors are not authorised to do an unlawful act and that they are aware of the risks and that appropriate precautions and instructions are issued.

It is important to note that in some situations the duty of care of employers are classified as non-delegable and in these situations the employer must exercise reasonable care to ensure that work is carried out safely and carefully. The difficulty is that the law has not been clear about why some duties are non-delegable and others are delegable.

7.2 Characteristics of Non-delegable and Delegable Duties

In situations where the activity is likely to be extremely hazardous or dangerous the duty is non-delegable and the employer is strictly liable (*Rylands v. Fletcher [1868] L.R. 3 H.L. 330; Hazlewood v. Webber [1934] 52 C.L.R. 26).* The only defence that might be available is one in which the employer can demonstrate absolutely no control over the situation. In other situations where one party has a special relationship with another party, issues of vulnerability, protection and control arise such as in hospitals, schools, prisons, occupiers liability and invitees. Hence, employment of independent contractors in these situations does not allow for the duty of care being delegable *(New South Wales v. Lepore; Samin v. Queensland, Rich v. Queensland [2003] 212 C.L.R 511; 195 ALR 412).* In work situations generally there is an obligation on employers to provide a safe system of work and to comply with statutory safety standards *(Kondis v. State Transport [1984] 154 C.L.R. 672; Groves v. Wimborne [1898] 2 Q.B. 402 AT 410).* Contractors must be competent, trained and warned about dangers/risks as well as being audited to ensure work is carried out safely. Some protection to the employers could be provided by employers seeking an indemnity from damage/injury caused by independent contractors' failure to follow policy and procedures and acting outside of authority.

In the High Court case of *Kondis v. State Transport Authority [1984] C.L.R* a worker was injured during work activity in the railway yards. The jib of a crane fell on the worker while it was being controlled by an independent contractor. The employer of the independent contractor was found to be personally liable (strict liability) rather than being vicariously liable. This was because the employer was responsible to ensure the independent contractor provided a safe system of work, particularly where some risk/danger was foreseeable and this responsibility was non-delegable to independent contractors.

However, it is important to note that the work itself must give rise to the risk and the employer is not liable for negligence resulting in damage caused collaterally. For example, the independent contractor maybe employed to perform a dangerous activity but in transporting the machinery/equipment along a highway to the place of work knocks down and kills a pedestrian the employer is not liable as negligence is collateral or not associated to the inherent risks/dangers of the contracted work. It is the nature of the work that is important in defining whether the duty of care is delegable or non-delegable.

If ordinary the performance of work does not create a reasonably foreseeable risk, negligent performance of that work is not enough to impose liability on the employer. However, if the work involves exceptional danger then the standard of care increases and may include collateral risks (*Burnie Port Authority v. General Jones Pty Ltd [1994*]). In the *Burnie Port Authority* case an independent expert contractor was welding in a roof with cardboard carton Isolite nearby for installation. Sparks from welding caused a fire due to the contractor's negligence but the employer had a duty to ensure the contractor took reasonable care in a potentially foreseeable dangerous situation.

In some situations it is difficult to identify the circumstances giving rise to a non-delegable duty as boundaries between categories are not clear. Generally, as noted the duty of care is non-delegable when a special dependence between the parties exist and the work activity is extra hazardous. For example in (*Northern Sandblasting Pty Ltd v. Harris [1997]*188 CLR 313) an electrician repaired a stove in a landlord's house but the work was not performed properly and the tenant was electrocuted. However, the landlord was found not liable as the duty of care was regarded as being delegable to the expert contractor. The landlord took reasonable care to engage a competent contractor and there was no inherent risk of danger by engaging a competent contractor. For the duty to be non-delegable a special relationship must exit that usually involves some form of care, supervision or control *(High Court cases Kondis [1994]; Burnie Portside Authority [1997]; Northern Sandblasting [2003]*. In Northern Sandblasting the electrician was regarded as an expert and the work was not regarded as inherently dangerous and so no special relationship established.

However, generally as the dangerousness of the risk increases so does the degree of duty owed. In high risk situations employers should issue precautions to reduce liability and in the absence of precautions liability results though this is not quite strict liability. Rather there is a higher degree to ensure care is taken and to provide special precautions. In workplaces employers have an obligation to ensure safe work places, safe plant, safe equipment and safe systems of work under statutory and common laws. Information, instruction, training and supervision is required to ensure work places remain safe and work is carefully and safely conducted. Generally, employers must be aware of foreseeable hazards and ensure independent contractors take practicable steps to reduce the risk of harm. Hence, works systems must account for the probability of risk of harm to workers and independent

contractors and the expense and difficulty of preventing harm *(Miletic v. Tedman [1984]* 155 C.L.R. 206 *High Court).* Risk prevention measures ensures safe and proper performance by independent contractors and reduces employer's liability.

Overall, if the work involves risk fraught with obvious dangers then the duty of care is non-delegable. If the risk is not obviously dangerous and the independent contractor is a competent expert and there is no special relationship been the employer and the employee the duty of care is delegable or dischargeable. Some civil liability legislation provides that if a non-delegable duty of care has been breached the defendant will only be liable to the same extent that they would be liable if they were vicariously liable *(Civil Liability Acts NSW, Qld & Tas; Wrong Acts (Vic) [1958]).*

In some circumstances attempts to indemnify against contractors has been successful by including in a contract that independent contractors will take reasonable care and failure to exercise reasonable care amounts to breach of contract *(Lister v. Romford Ice & Cold Storage [1957]* AC 555*).* However, it is not possible to generally indemnify against independent contractors to take reasonable care in all circumstances. For instance, in *Kelly v. Alford [1988] 1Qd R.,* the employee (Alford) was driving an unregistered van on the employer's (South Queensland Meats) premises. Kelly reversed into Alford injuring him. Kelly and Alford were employed by South Queensland Meats. South Queensland Meats sought an indemnity for costs of injuries to Kelly claiming there was an implied term in the contract that Alford would take reasonable care and skill in performing his duties. In a counter claim Alford contended there was an implied term in the contract that the employer would not require the employee to do anything which was unlawful. Alford was not aware the van was unregistered and therefore uninsured and hence it was argued he was required to act unlawfully unknowingly and therefore not liable for injury-related costs and entitled to an indemnity. The Full Court of the Supreme Court found that the van ought to have been insured as it was driven on public roads. South Queensland Meats therefore broke the implied term by requiring Alford to unlawfully drive an unregistered and uninsured van. Alford was therefore entitled to a full indemnity from South Queensland Meats and South Queensland Meats was not entitled to an indemnity from Alford.

It should also be noted that the *Lister v. Romford rule* has been modified in some Acts such as the Insurance Contracts Act 1984 (Cth); Employee Liability Act 1991 (NSW); Civil Liability Act 1936 (SA); Law Reform Act 1956 (NT) and Corporations Act (Cth) 2001.

Generally, implied terms are read into contracts that require employers not to put employees into situations of unlawful conduct. Employees engaging in unlawful conduct without knowing the conduct was unlawful will be indemnified. Additionally, it is also generally implied in contracts that employees conduct themselves with reasonable skill and care and employers may have a right of indemnity when the implied term is breached particularly in situations in which contractors holds themselves out as expert.

7.3 Legislative and Common Law frameworks for transport and road safety

Over the last century a great deal of legislative framework has been developed in industrialised countries to improve the safety of employees in their workplace largely associated with using tools or machinery (Johnstone, 2002). However, much less attention has been directed to injuries and deaths resulting from work-related driving. In recent years, Workplace Health and Safety (WHS), road laws and employer regulatory frameworks with their associated duty of care, and chain of responsibilities have increased attention on safety outcomes in the transport and road safety sectors (Murray et al., 2003).

The motor vehicle is regarded as an extension of the workplace and therefore duty of care and legal obligations are enlivened via the ordinary laws of negligence, WHS legislation and corporations laws are applicable when persons engage in a driving related activity for corporate (profit or non-profit) and/or commercial purposes. There is ample legal authority as noted, that an employer can be held liable for a defective system of work involving a motor vehicle (Manning v. Taroom Shire Council & Ors [1994] QCA 430; Curtin bros, (Qld) Pty Ltd v. FAI General Ins Co [1995] 1 Qd.R. 142; McEwan v. Gold Coast City Council [1987] 1 Qd.R. 337; Brew v. WorkCover Queensland [2004] 1 Qd.R 621). Furthermore, the Bros Bins System v. NSW IRC 2008 case has reaffirmed an earlier definition that motor vehicles fall within the definition of ‘plant’ under s17(1) of the NSW OHS Act 1983.

The motor vehicle is therefore considered to be a work tool and must be properly maintained and mechanically safe to drive. For example, in Hepworth v. Miller Bulk Haulage PTY LTD [2004] NSWSC 324, the company was held liable for failing to properly service the vehicle leading to a crash in which the driver was seriously injured. The driver was awarded $864,155.00 and the Company was also ordered to pay the Driver's legal costs. The duty of care an employer has to his employee who engages in a work-related driving activity extends to risks such as driving related fatigue, mechanical soundness and security of loads.

Legislative regimes at Federal, State and Territory levels in Australia provide severe penalties (heavy fines & imprisonment) for employers, companies and individual Directors who breach the duty of care owed to an employee. The employer is legally obligated to provide a working environment that is safe, and has minimal risk to worker's health, and ensure such environments are used in accordance with regulatory standards (Haworth, Tingvall, & Kowadlo, 2000). The scope of the employer's duty of care is wide and the employer is vicariously liable for the negligent acts of his employees and even illegal acts depending on the facts of the case *(Bugge v. Brown [1919] CLR 10*). The employer therefore has a legal obligation to ensure that employees are trained to carry out their tasks in a proper and safe manner. If employers failed to ensure the safety of their workers and serious injury or death results they could face a very serious charge such as criminal negligence.

An early successful prosecution as noted, of a corporation for manslaughter in Australia, R v. Denbo Pty Ltd [Supreme Court of Victoria, unreported, 14 June 1994], involved a small company where the managing director of the corporation was directly aware of unsafe working practices. The managing director permitted the driver of a dump truck to drive the vehicle with faulty brakes which led to the dump truck crashing and the driver being killed. The trucking company was fined $120,000 for criminal negligence and the managing director was fined $10,000. Additionally, the company was found to have no adequate training, supervision or, maintenance systems and ignored proper procedures in order to save costs.

In other cases the employer has been held legally liable for failing to ensure that drivers are not fatigued or failing to warn them of known dangers. For example, in the Queensland case of Brew v. WorkCover Qld [2003] QCA. 505 an employee was injured while driving fatigued, falling asleep and losing control of his truck. The employer was found to be wrongful for requiring the employee to drive while unfit and therefore the system of work

was defective. The employer also has a responsibility to warn drivers of known potential dangers. For instance, in Curtain Bros (Qld) v. FAI [1995] 1 Qd.R. 142 the injured plaintiff had used the vehicle supplied by his employer. The Plaintiff was not warned of the danger in a road along which she was to drive. The employer was aware of the danger and was therefore liable for Negligence.

The Company may also be held vicariously liable for the consequences of a wrongful or illegal act committed by the employee. In Imbree v. McNeill & QANTAS [2008] HCA 40, an employee (Imbree) was driving a QANTAS Company vehicle. When Imbree became tired he allowed a 16 year old unlicensed passenger to drive and the vehicle crashed leaving Imbree a tetraplegic. Imbree was awarded 6.7 million dollars.

In some circumstances a company may also be held liable for the negligent mistakes of independent contractors as mentioned, though traditionally this has not been the case. Although this is a complex area of law if the contracted tasks are fraught with obvious dangers and a special relationship exists between the company and the contractor that involves care, supervision and some control, the company's duty of care is not extinguished (see *Burnie Port Authority v. General Jones Pty Ltd [1994]* 179 CLR 520; Kondis v. State Transport [1984] 154 C.L.R. 672; Leichhardt Municipal Council v. Montgomery [2007] 233 ALR 200; (New South Wales v. Lepore; Samin v. Queensland, Rich v. Queensland [2003] 212 C.L.R 511; 195 ALR 412; *Northern Sandblasting* Pty Ltd v. Harris [1997] 188 CLR).

Several recent cases demonstrate the importance for companies to ensure safe work places involving motor vehicles even when independent contractors have assumed responsibility for the worksite (*Inspector Mark Barber v. Tumut Shire Council [2007] NSWIRComm 2; Victorian WorkCover Authority v. Monash City Council trading as City of Monash, Burke J, County Court of Victoria, 2007*). The Industrial Court fined the Tumut Shire Council $160,000 after an employee was hit by a car and killed at a road works site (see Inspector Mark Barber v. Tumut Shire Council [2007] NSWIRComm 2). One of the employee's colleagues was having difficulty covering the traffic control signs and called out for assistance. The employee stepped out onto the busy road in order to cross and assist his colleague when a car struck and killed him. The Council was found to lack good systems for providing information, instruction, training and supervision to address risks. Although the

Court found the worker is responsible for his own safety the Council must anticipate a worker's carelessness and take practical steps to reduce risks.

In Victoria WorkCover Authority v. Monash City Council trading City of Monash, Burke J, County Court of Victoria, 2007, as previously noted, a pedestrian was struck and killed by an independent contractor's utility reversing on footpaths works. In a four week trial the Council was acquitted of any wrong doing as the Council was able to establish that they required a traffic management plan which was reviewed and monitored. Hence the independent contractor was held liable as the Council was found to have fulfilled all of their obligations under the OHS legislation.

Common law therefore places a heavy onus on companies and corporations who manage a fleet of light vehicles to ensure risks associated with driving are minimal.

Similar responsibilities also apply to heavy trucks in the transport industry. In November 2008 the National Transport Commission (NTC) introduced model national compliance and enforcement legislation in order to improve road safety outcomes associated with the heavy transport industry. The legislation extends legal liability to all persons involved in the transport industry and is referred to as the chain of responsibility (COR) regulations. The majority of the national compliance and enforcement legislation has been adopted into the road and transport laws of the various States and Territories though there is some variation across jurisdictions. The laws are designed to ensure that all persons in the transport industry who act in a manner to facilitate contravention of road laws (e.g., breach of driving hours, overloaded & encouraging speeding) can be prosecuted. Hence the chain of responsibility includes not only the truck drivers but also consignors, consignees, packers, loaders and operators.

Statutory law and common law require that owner/operators of both light and heavy vehicular fleets take practical steps or reasonable precautions to manage and avoid exposing employees to unacceptable and reasonable foreseeable risks associated with work-related driving. In order to ensure compliance with the law and minimise legal liability companies and corporations require policies and procedures to assess and manage work-related driving risks. These policies and procedures should include: provisions to recruit competent staff; ensure vehicles are mechanically sound and maintained; provide adequate training and supervision;

interventions to improve road safety and mechanisms to monitor and enforce road safety procedures.

Companies and corporations are therefore required to adopt a risk minimisation approach to work-related driving activities. Work systems and practices must include reasonable steps to prevent foreseeable injury, reduce risk of harm and account for probability of risk of harm as well as the expense and difficulty of preventing harm (Miletic v. Tedman [1984] 155 CLR. 206 High Court). Additionally, a hardening insurance market, increased litigation, WHS and, civil liability legislation, worker's compensation procedures, and compulsory third party motor vehicle insurance have demanded better fleet safety management across all organisations (Clark & McInnes 2004).

Nevertheless, in respect to a duty of care owed by a roads authority there has been some controversy about whether the duty is delegable or non-delegable. This issue was debated in *Leichhardt Municipal Council v. Montgomery [2007]* 233 ALR 200. In this case an independent contractor was engaged by the Council to perform work on a footpath. A pedestrian fell into an unsecured pit on the footpath that had been covered by carpet and seriously injured his knee. Council argued it owed no duty of care or if it did it was delegable and discharged to the independent contractor. The trial judge ruled the duty non-delegable & this was upheld by the Court of Appeal. The Council appealed to the High Court.

In Leichhardt Municipal Council v. Lesley Montgomery, the High Court held that road authorities, such as Councils, are not automatically liable for the negligent acts of employees of independent road contractors.

The case involved a Plaintiff, Lesley Montgomery, who suffered an injury to his knee when he fell into a 60cm deep pit whilst walking along a footpath on Parramatta Road in Sydney. The Leichhardt Municipal Council had engaged a sub-contractor Roan Constructions, to carry out improvements to the footpath and one of its workers covered the pit, which had a broken lid, with a piece of carpet that could not support Mr Montgomery's weight.

Initially, the New South Wales District Court awarded Mr Montgomery $265,450.75 in damages against the Council less $50,000 he had agreed to accept in a settlement from Roan

Constructions. Both the District Court and the New South Wales Court of Appeal concluded that Mr Montgomery was owed a non-delegable duty of care by the Council and that there had been a breach of that duty.

The Court of Appeal upheld the Primary Judge's findings that there had been negligence on the part of workers employed by Roan Constructions and that Council was therefore liable without any need for Mr Montgomery, to establish fault on the part of Council employees.

The Leichhardt Municipal Council subsequently was granted leave to appeal to the High Court on condition that it met the costs of the Appeal.

The Council's Appeal was successful and the Court unanimously held that the Council did not owe Mr Montgomery a non-delegable duty of care.

In arriving at its judgement, the High Court noted that the proposition that a non-delegable duty of care arises when an independent contractor's services are engaged is not supported by legislation, public policy or recent judgements of the High Court. Instead, the Court maintained the standard test of negligence, namely that the Council's duty was to take reasonable care to prevent injury. In arriving at its judgement, the High Court was also mindful that the New South Wales roads legislation did not contain any restrictions that road-works and works on footpaths be carried out only by workers employed by road authorities with the engagement of contractors to carry out those types of works being very common.

The Court held that it was implausible for a duty to be placed on the Council to ensure that carelessness such as placing a carpet (as opposed to a board) over a broken manhole lid did not occur regardless of whether employees of the Council were at fault.

Whilst it was acknowledged by the High Court that the Council had a duty to exercise reasonable care in supervising a contractor or in approving the contractor's plans and system of work, that duty did not make it automatically liable for the negligence of an independent contractor's employees.

This Appeal to the High Court was restricted to the issue of whether a non-delegable duty of care was owed by the Council and the case was remitted to the Court of Appeal to determine whether there was any actual lack of care or negligence on the part of the Council's officers.

Although this case emphasis that a duty of care is delegable when an independent expert contractor is employed to carry out footpath repairs, the Council still has legal obligations under the ordinary rules of negligence to take reasonable precautions and ensure planned work methods are safe.

8. Summary of Strengths, Deficiencies, Risks, Liabilities and Recommendations

8.1 Strengths and Deficiencies

The Redland City Council has developed a Governance Department to manage corporate risks and a set of comprehensive policies and procedures are available to all staff to manage workplace safety. The procedural documents are clearly written in plain English and cover the scope, purpose, actions and responsibilities in relation to work tasks. Systems have been established that include a WHS Unit, a WHS committee, WHS representatives and risk management frameworks to identify potential safety hazards and implement preventive injury control measures. Additionally, regular audits are conducted by accredited WHS officers to ensure compliance with industry standards, Codes of Conduct and Safety related legislation.

Employees receive general training in regards to workplace Codes of Conduct and Procedures. Additional specific ongoing training occurs at the employee's relevant workplace. A system is in place for Workplace representatives to identify and report potential risks and for corrective action to be implemented to ensure control measures are in place. Serious incidents are investigated by accredited WHS officers and where appropriate independent expert safety investigators are contracted to identify the causes of accidents and make recommendations to prevent future similar accidents. The Redland City Council has an excellent system in place for ensuring the recommendations of independent safety inspectors are implemented.

On a daily basis WHS officers visit various Council workplaces and road construction and maintenance sites to enforce compliance with workplace safety procedures. In comparison to other Queensland local Councils the Redland City Council has been assessed by the Ombudsman's Office as having best practice in the area of traffic management at road construction and maintenance sites.

In relation to the management of Fleet vehicles and plant equipment a comprehensive set of procedures has been established to monitor and ensure vehicular equipment is serviced and maintained in a safe working condition. Employees receive training and enter into specific terms of agreement with respect to use of fleet vehicles. Procedures are in place to record all incidents involving Fleet vehicles. In comparison to a number of other Local Councils Redland City Council consistently improved over 3 years in the management of Fleet vehicle-related incidents. The improvements included:

- reduction in average crash cost by 57% between 2008 and 2009;
- the only Council to demonstrate driver behaviour improvement in relation to at fault crashes;
- A significant reduction in reversing crashes;
- Greater safer driving practices compared to other Councils; and
- Greater management commitment to work-related road safety compared to other Councils.

Overall, the evidence suggest, particularly having regard to the lack of serious vehicular incidents over the last few years, Fleet passenger vehicles are extremely well managed by the Fleet team. For example, safe driving is promoted and poor driving behaviour and employee traffic incidents are investigated. Nevertheless, some deficiencies were evident such as the lack of ongoing periodic checks of employees to ensure that they have an appropriate driver's licence and that they are fit for work-related diving.. Additionally, there has been some reluctance on occasion by employees to complete traffic incident reports adequately.

In order to promote a culture of safe driving among employees, Directors and Senior Managers must be seen to promote and encourage safe driving attitudes and behaviours. Hence, it is important for Directors and Senior Managers to ensure completion of vehicular incident reports in a timely and accurate manner. All employees should be encouraged to

report near misses without recrimination so that potential driving hazards can be identified and preventive driver training programs improved.

It is also important to have processes in place to ensure that poor driver behaviour is addressed and that employees hold a valid driver's licence. A random program of employee's driver's licence status is recommended. This process would reduce the risks associated with employees driving unlicensed such as loss of insurance coverage and damages arising out of a road accident. Council may have a partial or complete indemnity against an employee involved in a driving accident without a valid driver's licence as an employee's contract and code of conduct can be read to imply that an employee will not do anything unlawful. However, it is reasonably foreseeable that some employees might engage in work-related driving without a valid driver's licence. Hence, there is an onus on Council to take reasonable practical steps to ensure that employees have a valid driver's licence if they are to be assured of a complete indemnity against an employee's unlawful driving behaviour.

Reasonable practical steps are also required to prevent foreseeable risks associated with an employee's history of poor driving behaviour. For instance, while an employee may have a valid driver's licence he or she may have a history of speeding, traffic accidents, loss of licence and generally poor driving record/behaviour. Council has an obligation to ensure that all employees are fit and capable of work-related driving. Hence mechanisms must be in place to research an employee's driving record and any medical condition that may impinge upon safe driving. Allowing employees who have a history of flouting driving laws to engage in work-related driving may reduce or negate indemnity against work-related road accidents.

In general, the main strength of Redlands City Council is that the Council seems to have incorporated most of the 11 Boardman and Lyon (2006) principles of best practice in relation to the corporate management of workplace health and safety issues. For instance, the Redland City Council has a solid WHS framework that includes a system for ensuring compliance with safety procedures and legislation. However, a more thorough investigation is required in order to confirm the extent to which the Boardman and Lyon principals have been implemented.

However, the auditor did observe some deficiencies that related largely to a lack of integration and coordination of WHS issues across the whole organisation. In some workplace areas, such as on the Islands, there was a deficiency with respect to ensuring a consistent and regular system of safety inspections. Additionally, the WHS framework requires better mechanisms to ensure that employees with special needs are subjected to appropriate ongoing training and supervision. Improvement is also required with respect to ensuring the recruitment of competent independent contractors and that contractors are appropriately monitored. The WHS framework could also be improved by creating an incentive structure for senior executives and workplace managers to encourage and drive a climate and culture of safety.

The aforementioned deficiencies may be best addressed by establishing a specific Board of WHS rather than just having WHS committee or subcommittee within another department or section. Establishing a workplace Health and Safety Board sends a clear message across the organisation that the Council and the Board of Directors are very serious about ensuring safe work practice.

A WHS Board also allows for an appointment of a Director of WHS with authority to coordinate workplace safety issues in an integrated and seamless manner across the whole organisation. The Director of WHS would be ultimately accountable to the WHS Board, CEO, Councillors and the Mayor. Furthermore, Boardman and Lyon (2006) recommend that there should be a process that enables workplace governance and performance to be challenged by a non-Executive Director or an external advisor or a WHS professional via direct links to the CEO. The appointment of such a position has the potential to improve transparency of workplace safety concerns and provide checks and balances across the organisation.

8.2 Risks and Liabilities

The most serious risks for Redland City Council relate to work involving the use of plant equipment. A number of incidents involving plant equipment highlighted in this report indicate potential risks relate:

- lack of planning and scoping of work;
- using equipment not fit for purpose;
- lack of team work;
- non-adherence to safety procedures in some instances;
- lack of safety procedures;
- inexperience or incompetence; and
- lack of supervision of contractors.

The majority of serious incidents related to plant equipment involving contractors employed by the Council. The Redland City Council's liability therefore may be minimised to some extent by the fault of contractors or in situations in which Duty of Care or legal obligations are delegable. However, Duty of Care and legal obligations may not be delegable in all situations, particularly in situations that are fraught with reasonable foreseeable exceptional dangers to employees and members of the public. Even in situations where the Duty of Care is delegable the ordinary laws of negligence still apply to Council. Hence, Council has an obligation in these situations to ensure that contractors have in place control measures and reasonable precautions to prevent risk of injury or death to employees and members of the public.

The importance of Councils having systems in place to ensure contractors comply with safety codes of conduct, safety procedures and legislation was highlighted in Victoria WorkCover v. Monash City Council, Chubb Security, Rabot Paving Ltd Pty [2003]. The Monash City Council in this instance took all reasonable practical steps to ensure workers and pedestrians were not exposed to risk of injury. For example, Monash City Council ensured that an appropriate TMP was in place and that inspectors monitored works on a daily basis in order to enforce compliance with workplace legislation and codes of conduct. These practices provided Monash City Council a complete defence or indemnity to the negligent work practices carried out by Chubb Security.

Although the Redland City Council has a workplace safety framework in place that includes accredited safety professionals to monitor the work of employees and contractors mechanisms are not adequate enough to ensure a complete indemnity against poor safety practices by contractors. Clearly, in a number of accidents involving contractors, procedures were inefficient to ensure contractors were competently trained to undertake the work and

there was a lack of supervision of contractors. The current inspection and safety processes that Redland City Council has in place could be improved by increasing the number of WHS officers to ensure adequate daily inspections are undertaken and that safety plans implemented by contactors comply with legislation. Additionally, mechanisms need to be improved to ensure that only competent and trained contractors are recruited to undertake Council work that may involve inherent dangers.

In order for Councils to argue for a complete indemnity against damages arising out of negligence by contractors, Councils must have a process to ensure that only competent contractors are recruited and that contractors receive adequate warning and instructions regarding any inherent risks and dangers of the work. Additionally, contractors must be regularly audited to ensure the work is being carried out with appropriate control measures and reasonable practical precautions taken to prevent injury and/or death to workers or members of the public.

Other areas of risk/concern relate to:

- inadequate warning signs to warn approaching motorists of road workers;
- excessive speed in road construction and maintenance sites;
- inadequate protection barriers/bollards around road construction/maintenance sites;
- safety devices on plant machinery not working or not being used appropriately;
- lack of night street lighting at development sites; and
- gravel spillage from trucks left on roads near road construction and development sites.

To some extent Council's liability is largely reduced by processes in place to ensure that these risks are monitored, recorded and acted upon. For example, WHS officers carry out regular inspections to warn employees and contractors of workplace breaches and order compliance with safety codes and legislation. However, it is important that when employees or contractors consistently flout safety standards Council needs to take appropriate and harsh enforcement action. It was noted by the auditor that some breaches of safety seemed to be an ongoing occurrence such as the use of inadequate protection barriers/bollards. Council may have to ensure stronger enforcement measures against contractors other than continued

warnings in the face of ongoing non-compliance in order to ensure a complete indemnity against damages that might arise due to inadequate protection barriers.

A major area of difficulty for the Redland City Council is how best to manage excessive speed occurring in road construction and maintenance sites. In spite of the fact that Redland City Council is regarded as having best practice for managing safety in and around road construction and maintenance sites excessive speed by motorists poses an ongoing threat to workers and the public. For example, when the auditor tested the speed of 38 motorists passing through a road construction site the majority of motorists exceeded the posted speed limit of 40k. Police do not have the resources to provide assistance to Council to monitor and enforce speed limits through all the road construction and maintenance sites. Council's powers to enforce speed limits are restricted to posting warning signs, reporting motorists to police and setting up speed warning devices.

A more proactive approach to reducing the speed of motorists through road constructions sites is required. The feasibility of a number of proactive speed management countermeasures may be worth investigating and include:

- the establishment of a single traffic unit management branch to monitor and enforce compliance with codes of practice;
- the introduction of portable speed bumps that could be used in an around road construction sites;
- the use of speed detection warning and awareness devices at all hazardous road construction sites to educate motorists;
- liaison with the police traffic section to investigate ways for police to be more proactive in the enforcement of speed limits in and around road construction sites;
- consider legislative amendments in order to appoint and empower specialist Council Traffic Officers to issue infringement notices regarding excessive speed in and around road construction sites; and
- the need to increase staff by at least two trained WHSO within the Workplace Health and Safety Unit to ensure more regular and systematic inspections and audits across both the mainland and the Islands.

The effectiveness of some of these countermeasures such as the use of speed detection and warning advices and portable speed bumps could easily be assessed through a randomised design with experimental and control groups.

Another area of risk that may result in the Council being liable for damages relates to the slashing of long grass. The Townsville slasher tragedy (see p. 45) and the Redcliffe cyclist incident (see p. 45) are examples of this. Although the outcome of the Townsville slasher tragedy is yet to be decided the case does demonstrate some potential risk for all Councils. For instance, it is reasonably foreseeable that a tractor slashing long grass may potentially strike a hidden object causing the object to ricochet and hit and injure an employee or member of the public. A practical precautionary step to be taken to prevent such an injury would be for Councils to implement a program of checking long grass for hidden objects before slashing.

Other risks that may increase the Council's liability include as mentioned, a failure to implement an adequate monitoring and enforcement program to ensure contractors remain compliant with safety laws and regulations. Council's liability also may be increased with respect to employees who have special needs related to poor literacy skills and cognitive impairment. To mitigate against this risk Council should ensure that training and supervision programs are designed to cater for the special needs employee group.

Steps to minimise risks and liabilities include:

- establishing adequate processes to identify reasonably foreseeable safety hazards;
- ensuring that employees and contractors abide by safety laws, regulations and industry codes of practice;
- taking reasonable practical precautions and proper diligence to manage/prevent potential risks that may result in injury or death;
- in situations in which tasks have inherent dangers ensuring employees and contractors take reasonable care to prevent injuries; and
- establishing express contractual indemnities where appropriate.

8.3 Recommendations

It is recommended that Redland City Council:

1. Give consideration to establishing a specific Board of WHS rather than just having a WHS committee or subcommittee within another department or section. Establishing a workplace Health and Safety Board sends a clear message across the organisation that the Council and the Board of Directors are very serious about ensuring safe work practice.

2. Consider appointing a Director of WHS with authority to coordinate workplace safety issues in an integrated and seamless manner across the whole organisation. The Director of WHS would be ultimately accountable to the WHS Board, CEO, Councillors and the Mayor. The Director of WHS would take prime responsibility for ensuring workplace safety policies and procedures are implemented across all Council's areas of responsibility. The duties of this position would include addressing potential safety risks and encouraging a positive safety culture.

3. Appoint a non-Executive person with workplace safety expertise to provide advice directly to the CEO about safety issues and concerns. This position could be fulfilled by an independent safety consultant or the Principle Advisor of the WHS Unit. The main aims of the position include: ensuring transparency of workplace safety concerns; and providing checks and balances across the organisation.

4. Develop an incentive structure for senior executives and workplace managers to encourage and drive a climate and culture of safety.

5. Workplace safety indicators include records of all non-injury health and safety failures such as near misses and minor mishaps. Additional measures of safety culture and the performance integrity of management systems may assist to improve attitudes towards safety. Documenting the integrity of risk control measures, safety process failures and financial losses in relation to near misses, and minor mishaps

may be of assistance in developing strategies to avoid future incidents with major safety implications.

6. Establish a process for identifying employees with poor literacy skills and memory problems with the view to developing suitable workplace training and supervision programs.

7. Consider establishing a single traffic unit management branch to monitor and enforce compliance with codes of practice.

8. Consider trialling and evaluating the effectiveness of portable speed bumps in and around road construction and maintenance sites.

9. Consider trialling and evaluating the effectiveness of speed detection warning and awareness devices at all hazardous road construction sites to educate motorists.

10. Liaise with the Police Traffic section to investigate ways for police to be more proactive in the enforcement of speed limits in and around road construction sites.

11. Introduce a policy that protection barriers/bollard include a plug design that cannot be tampered with to avoid the loss of water.

12. Investigate the possibility of legislative amendments related to appointing and empowering specialist Council Traffic Officers with the ability to issues infringement notices for excessive speed in and around road construction and maintenance sites.

13. Establish a process to check that that all Councils workers using Council's vehicles or plant equipment are appropriately licensed.

14. Establish a process to ensure Council workers are fit (i.e., not fatigued, do not have a history of poor driving behaviour, not under the influence of liquor or drugs that affect driving ability) for work-related driving duties.

15. Implement a system for checking and ensuring that Contractors are competent and appropriately qualified to undertake assigned work.

16. Ensure that Contractors are warned of potential workplace dangers and are appropriately monitored to ensure compliance with workplace safety policies/procedures, industry codes and legislation.

17. Improve the supervision and monitoring standards of Councils workers and contractors undertaking work on Islands.

18. Investigate the potential for employees to use work gloves designed to prevent branches or leaves being caught in the gloves when trimming leaves or cutting branches.

19. Ensure that when workers are undertaking work on Islands that at least one of them is trained in the provision of First Aid.

20. Ensure that workplace safety inspections are of sufficient quality and quantity in order to minimise safety risks to Council employees and limit Council's liability in the event of negligent acts by contractors resulting in injury or death. This should include a system for ensuring that the scoping and planning of work is appropriate and that appropriate equipment is utilised.

21. Establish a process to minimise the risk of tractors hitting hidden objects when slashing long grass which may result in the hidden object ricocheting and causing injury to workers or members of the public.

22. Increase staff by at least two trained WHSO within the Workplace Health and Safety unit to ensure more regular and systematic inspections and audits across both the mainland and the Islands.

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